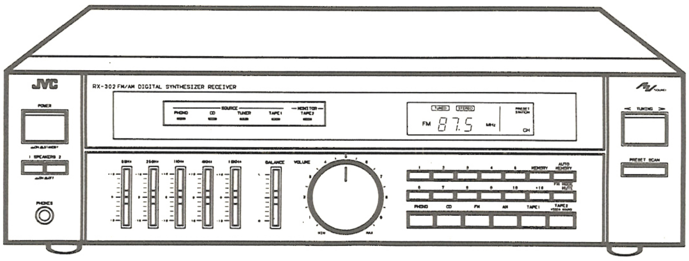
SERVICE MANUAL

FM/AM DIGITAL SYNTHESIZER RECEIVER

MODEL No. RX-302BK
RX-302LBK



RX-302BK / RX-302LBK

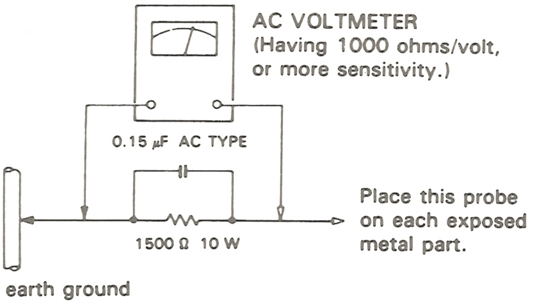
Contents

Safety Precautions 1-2
Instruction Manual 1-3
Removal Procedures 1-13
FM/AM Tuner Alignment Procedures 1-14
Power Amplifier Adjustment Procedures 1-15
FL Display Tube Internal Connection 1-15
Description of ICs 1-16
Schematic Diagram of Front-End Pack 1-21
Block Diagrams 1-23
Printed Circuit Boards .... Insertion
Connection Diagrams .... Insertion
Parts List .... Separate-Volume Insertion

No. 20142
Dec. 1989

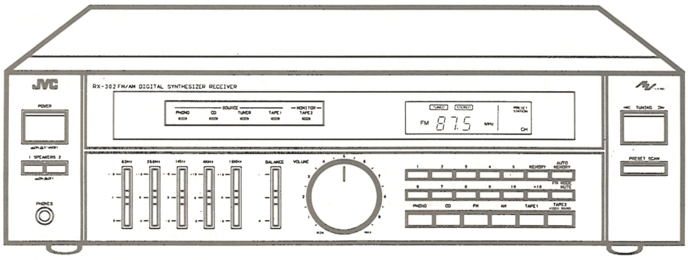
Safety Precautions

1. The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the product have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage current check (Electrical shock hazard testing)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   Do not use a line isolation transformer during this check.
   - Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5 mA AC (r.m.s.).
   - Alternate check method
     Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 Ω 10 W resistor paralleled by a 0.15 μF AC-type capacitor between an exposed metal part and a known good earth ground.
     Measure the AC voltage across the resistor with the AC voltmeter.
     Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).


AC VOLTMETER
(Having 1000 ohms/volt, or more sensitivity.)
0.15 μF AC TYPE
1500 Ω 10 W
Place this probe on each exposed metal part.
Good earth ground

Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.



Introduction

Thank you for purchasing this JVC RX-302BK Receiver. We hope it will be a valued addition to your stereo system. Be sure to read these instructions carefully before operating the receiver. This manual gives you the basic information you need to set up and use your receiver. It explains everything you need to know from turning on the power switch to basic troubleshooting. Please consult your JVC dealer if you have any questions about the receiver.

Use this manual to help you with the following:

- Connect your other stereo components to the receiver.
- Learn the functions of the controls and indicators on the receiver.
- Preset radio stations into the receiver's memory.
- Operate the receiver.
- Troubleshoot, if there is a problem with the receiver.

This manual is organized as follows:

The first part of this manual tells you how to connect your other stereo components and antennas to the receiver.

The second part of this manual introduces you to the controls and indicators on the receiver.

The third part of this manual tells you how to operate the receiver.

The fourth part of this manual provides a troubleshooting guide and specifications for the receiver.

Use the following guidelines to help you follow the instructions in this manual:

- Keys or buttons to be pressed are indicated with capital letters, for example: TUNING key.
- Connection points on the back of the receiver are indicated with all capital letters, for example: PHONO
- Names of indicators that light up on the receiver are indicated with all capital letters, for example: TUNED
- Steps that you need to follow to get the correct results, are labeled ***Important!***
- Additional information that is helpful to know, is labeled ***Note:***

Installation Preparation

Locating the Receiver

Install the receiver in a place that is level and protected from moisture.

The temperature around the receiver must be between 23° and 104° Fahrenheit (-5° and 40° Celsius).

Make sure there is good ventilation around the receiver. Poor ventilation could cause over-heating and damage the receiver.

The receiver could cause some interference with television reception. Locate the receiver away from your TV to prevent interference.

Making Power Connections

Do not handle the power cord with wet hands.

Do not pull on the power cord to unplug the receiver. Always pull the molded plug at the end of the cord instead.

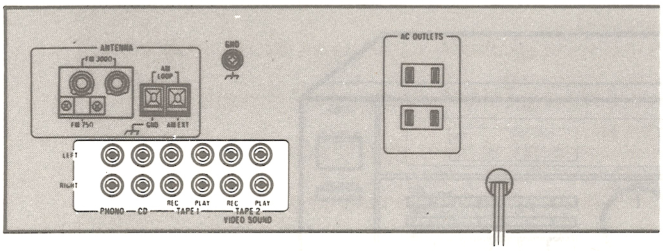
Handling the Receiver

Do not insert any metallic object into the receiver.

Caution: To reduce risks, such as electric shocks or fires:

1. **Do not remove screws, covers, or cabinet.**
2. **Do not expose this appliance to rain or moisture.**

Stereo Component Connections

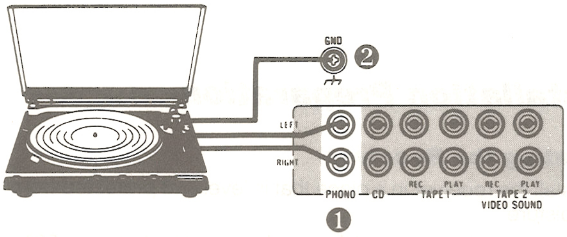

ANTENNA
FM 300Ω
FM 75Ω
AM LOOP
GND
AM EXT
GND
AC OUTLETS
LEFT
RIGHT
PHONO
CD
REC
PLAY
TAPE 1
REC
PLAY
TAPE 2
VIDEO SOUND

You can connect the following stereo components to the back of your RX-302BK receiver:

- Turntable
- Compact Disc Player
- Tape Deck(s)
- VCR or TV

The following instructions will show you how to connect stereo components to the receiver.

***Important!** Make sure you connect the left channels of all stereo components to the left jacks on the top row of the receiver. Connect the right channels of all stereo components to the right jacks on the bottom row of the receiver. If you reverse the channels, the stereo sound will be affected.*

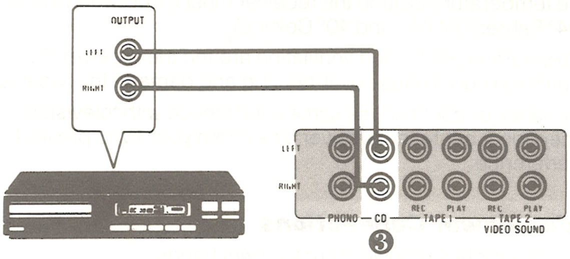

GND
❷
LEFT
RIGHT
PHONO
CD
REC
PLAY
TAPE 1
REC
PLAY
TAPE 2
VIDEO SOUND
❶

Turntable

❶ Connect the left and right channels on your turntable to the left and right jacks marked PHONO on the back of the receiver.

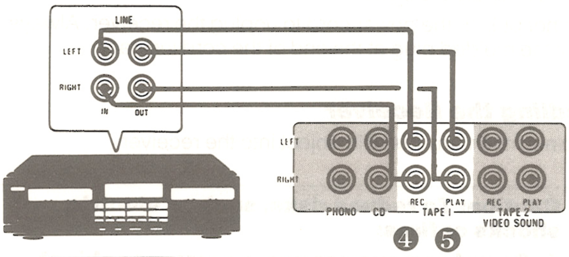
❷ Read the instruction manual for your turntable to see if the turntable needs to be grounded. If it does, connect the turntable's ground wire to the terminal marked GND on the back of the receiver.

***Important!** Use the RX-302BK receiver only with turntables that have a moving magnetic (MM) type cartridge.*


OUTPUT
LEFT
RIGHT
LEFT
RIGHT
PHONO
CD
REC
PLAY
TAPE 1
REC
PLAY
TAPE 2
VIDEO SOUND
❸

Compact Disc Player

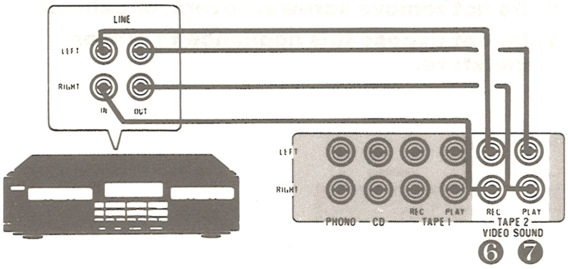
❸ Connect the left and right channels on your compact disc player to the left and right jacks marked CD on the back of the receiver.


LINE
LEFT
RIGHT
IN
OUT
LEFT
RIGHT
PHONO
CD
REC
PLAY
TAPE 1
REC
PLAY
TAPE 2
VIDEO SOUND
❹ ❺

Tape Deck

❹ Connect the left and right "Line In" channels on your tape deck to the left and right TAPE 1 jacks marked REC on the back of the receiver.

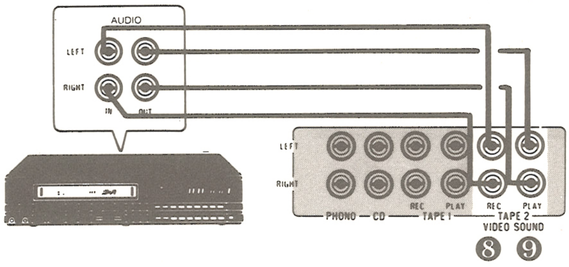
❺ Connect the left and right "Line Out" channels on the tape deck to the left and right TAPE 1 jacks marked PLAY on the back of the receiver.


LINE
LEFT
RIGHT
IN
OUT
LEFT
RIGHT
PHONO
CD
REC
PLAY
TAPE 1
REC
PLAY
TAPE 2
VIDEO SOUND
❻ ❼

Second Tape Deck

❻ Connect the left and right "Line In" channels on your second tape deck to the left and right TAPE 2/VIDEO SOUND jacks marked REC on the back of the receiver.

❼ Connect the left and right "Line Out" channels of the tape deck to the left and right TAPE 2/VIDEO SOUND jacks marked PLAY on the back of the receiver.

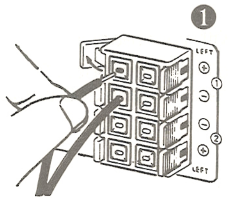

AUDIO
LEFT
RIGHT
IN
OUT
LEFT
RIGHT
PHONO
CD
REC
PLAY
TAPE 1
REC
PLAY
TAPE 2
VIDEO SOUND
❽ ❾

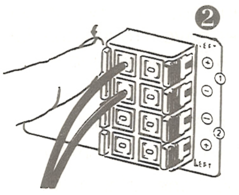
VCR or TV

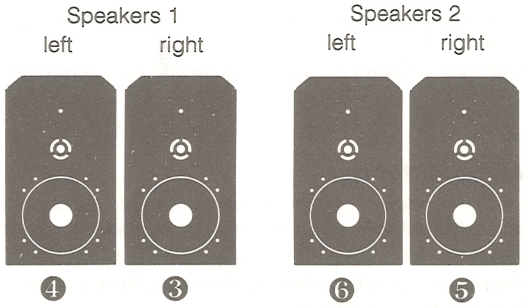
❽ Connect the left and right audio input channels on your VCR or TV to the left and right TAPE 2/VIDEO SOUND jacks marked REC on the back of the receiver.

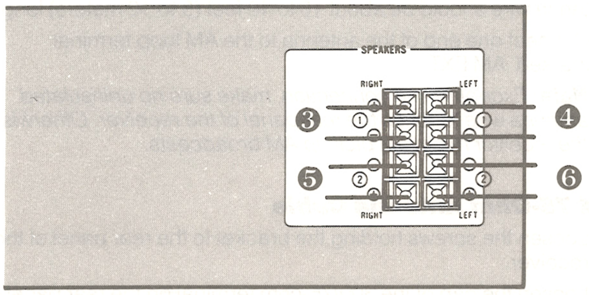
❾ Connect the left and right audio output channels on your VCR or TV to the left and right TAPE 2/VIDEO SOUND jacks marked PLAY on the back of the receiver.

Speaker Connections









You can connect two pairs of speakers (four speakers total) to this receiver. The two pairs of speakers are called Speakers 1 and Speakers 2.

Important! *Be sure to match the polarity of the speaker terminals with the polarity of the terminals on the receiver. (+) to (+) and (-) to (-).*

Note: *This receiver is only for use with speakers having impedance of 8 to 16 ohms. Check your speaker specifications to make sure the speakers have the correct impedance.*

Speaker Terminals

❶ When connecting speakers, open each terminal and insert the end of the speaker wire as shown.

❷ Close the terminals as shown to clamp the speaker wires in place.

Speakers 1

Connect the first pair of speakers (Speakers 1) to the receiver as follows:

❸ Connect the (+) and (-) terminals of the right-side Speaker 1 to the (+) and (-) terminals marked RIGHT on the receiver.

❹ Connect the (+) and (-) terminals of the left-side Speaker 1 to the (+) and (-) terminals marked LEFT on the receiver.

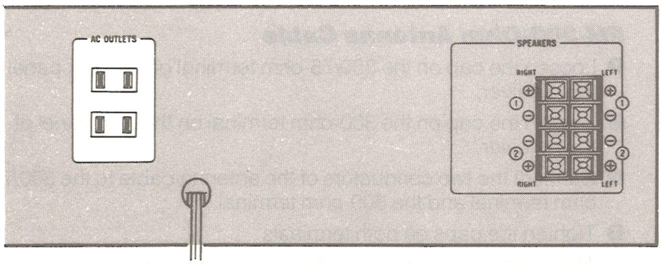
Speakers 2

If a second pair of speakers (Speakers 2) is to be used, connect them to the receiver as follows:

❺ Connect the (+) and (-) terminals of the right side Speaker 2 to the bottom (+) and (-) terminals marked RIGHT on the receiver.

❻ Connect the (+) and (-) terminals of the left-side Speaker 2 to the bottom (+) and (-) terminals marked LEFT on the receiver.

AC Power Connections



Important! *Before you plug the power cord into an outlet, make sure all stereo components are connected correctly. Do not connect stereo components requiring more than 150 watts (total) to the receiver.*

Caution: To prevent electric shock, turn all stereo components off before you install or remove power cords.

Plug the power cord on the back of the receiver into a 120 volt, 60 Hz AC household electrical outlet.

You can connect the power cords of the other stereo components to the two AC outlets on the back of the receiver.

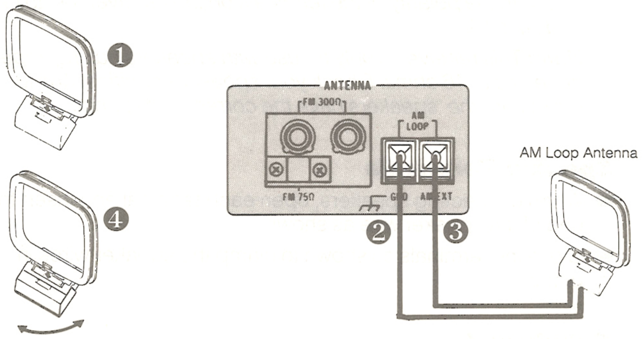
Note: *The AC outlets provide power whenever the receiver is plugged in, regardless of the receiver's power switch setting.*

AM and FM Antenna Connections

To receive radio broadcasts, you will have to connect AM and FM antennas to the receiver.

An AM loop antenna is included with your receiver.

FM antennas use two types of cable connections: 75-ohm cables have a round coaxial connection while 300-ohm cables have a flat connection.


❶
❹
ANTENNA
FM 300Ω
AM LOOP
FM 75Ω
GND
AM EXT
❷
❸
AM Loop Antenna

AM Loop Antenna

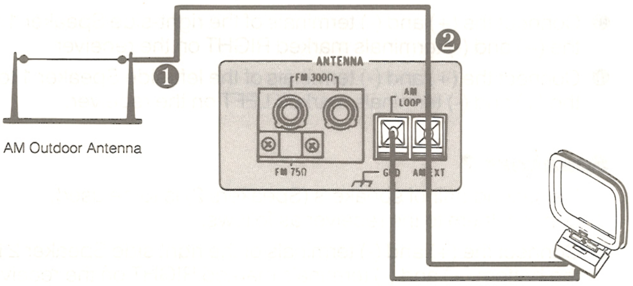
❶ Fold out the loop from the antenna base.

❷ Connect one antenna wire to one of the AM LOOP terminals on the receiver.

❸ Connect the remaining antenna wire to the other AM LOOP terminal.

Note: *These two terminals open and close the same way as the speaker terminals.*

❹ Adjust the loop antenna as needed to get the best reception.


❶
❷
ANTENNA
FM 300Ω
AM LOOP
FM 75Ω
GND
AM EXT
AM Outdoor Antenna

AM Outdoor Antenna

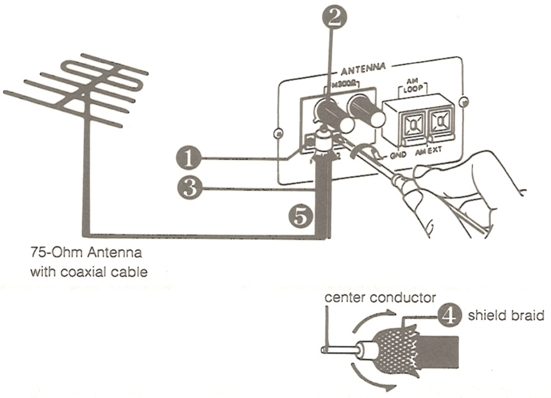
If your AM broadcast reception is unsatisfactory, you should connect an AM outdoor antenna in addition to the loop antenna.

Important! *The AM loop antenna must be installed to receive AM broadcasts. Do not disconnect the loop antenna when installing an outdoor antenna.*

❶ Install a single vinyl-covered antenna wire outdoors. The antenna wire should be about 16 to 40 feet (5 to 12 meters) long.

❷ Connect one end of the antenna to the AM loop terminal marked AM EXT.

Note: *Except for the connection, make sure no uninsulated antenna wire touches the rear panel of the receiver. Otherwise, the receiver might not pick up AM broadcasts.*


❷
ANTENNA
FM 300Ω
AM LOOP
GND
AM EXT
❶
❸
❺
75-Ohm Antenna
with coaxial cable
center conductor
❹ shield braid

FM 75-Ohm Antenna Cable

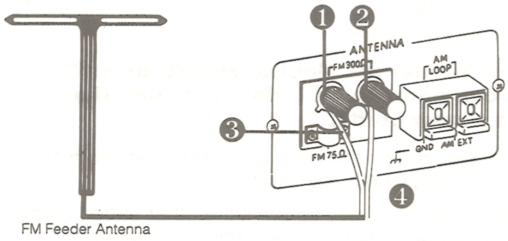
❶ Loosen the screws holding the bracket to the rear panel of the receiver.

❷ Loosen the cap of the 300/75-ohm terminal on the rear panel of the receiver.

❸ Insert the round antenna cable through the bracket from below.

❹ Make sure that the shield braid on the cable contacts the bracket, and that the center conductor of the cable contacts the 300/75-ohm terminal.

❺ Tighten the bracket screws and the cap on the 300/75-ohm terminal.


❶
❷
ANTENNA
FM 300Ω
AM LOOP
❸
FM 75Ω
GND
AM EXT
❹
FM Feeder Antenna

FM 300-Ohm Antenna Cable

❶ Loosen the cap on the 300/75-ohm terminal on the rear panel of the receiver.

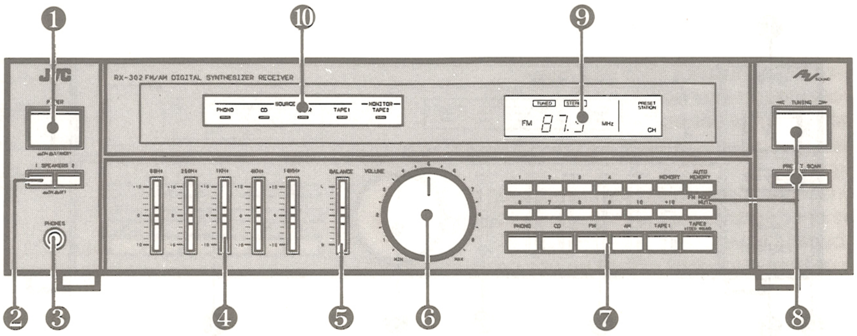
❷ Loosen the cap on the 300-ohm terminal on the rear panel of the receiver.

❸ Connect the two conductors of the antenna cable to the 300/75-ohm terminal and the 300-ohm terminal.

❹ Tighten the caps on both terminals.

Note: *Whether you use the 75-ohm or 300-ohm cable, make sure the antenna conductors do not touch any other terminals on the receiver. This could cause poor reception.*

Front Panel Controls


❶
❿
❾
JVC
POWER
RX-302 FM/AM DIGITAL SYNTHESIZER RECEIVER
SOURCE
PHONO
CD
TAPE 1
MONITOR
TAPE 2
TUNED
STEREO
FM 87.9 MHz
PRESET STATION
CH
TUNING
PRESET SCAN
SPEAKERS
PHONES
63Hz
250Hz
1kHz
4kHz
16kHz
BALANCE
VOLUME
MIN
MAX
1
2
3
4
5
MEMORY
AUTO MEMORY
6
7
8
9
10
+10
PHONO
CD
FM
AM
TAPE 1
TAPE 2
❷
❸
❹
❺
❻
❼
❽

❶ *Power Switch*

Press this switch in to turn on power to the receiver. Press the switch out to turn off the power and activate the STANDBY mode.

Note: *The receiver uses a small amount of power (5 watts) in the STANDBY mode. To disconnect power completely, unplug the power cord.*

❷ *Speaker Switches*

Press the two SPEAKER switches in to turn Speakers 1 and Speakers 2 on. Press the SPEAKER switches out to turn the speakers off.

❸ Headphone Jack

Stereo headphones may be connected here. For private listening, press both speaker switches off.

❹ *5-Band S.E.A. Graphic Equalizer*

The built in graphic equalizer breaks down the audible frequency range into five bands at intervals of 2 octaves. Each band of tones can be adjusted as desired.

When the S.E.A. level is set to "0" (center position), frequency response is flat. The response can be varied + 10dB by raising or lowering the knob.

63Hz – Deep Bass
250Hz – Bass
1kHz – Mean
4kHz – Mean Treble
16kHz – Treble

❺ *Balance Control*

This controls the volume balance between the left and right speakers. Slide the BALANCE control up to increase volume for the right speaker(s). Slide the BALANCE control down to increase volume for the left speaker(s). In the center position, left and right speakers have equal volume.

❻ *Volume Control*

The Volume Control adjusts the level of sound heard from the speakers or headphones.

❼ *Source Selectors*

Use these six buttons to choose the stereo source you want to listen to. Source Indicator Lights show which source(s) have been selected.

PHONO: Press to listen to records.
CD: Press to listen to CDs.
FM: Press to listen to FM broadcasts.
AM: Press to listen to AM broadcasts.
TAPE 1: Press to use the tape deck connected to the TAPE 1 jacks on the receiver.
TAPE 2/VIDEO SOUND: Press to use the tape deck, graphic equalizer, or video equipment connected to the TAPE 2/VIDEO SOUND jacks on the receiver.

❽ *Tuning Key*

Use the TUNING key to tune in the AM or FM broadcast station you want to listen to. The TUNING key is also used for setting and recalling preset radio stations (see "Listening to Radio Broadcasts" on page 7 for more information on using the TUNING key).

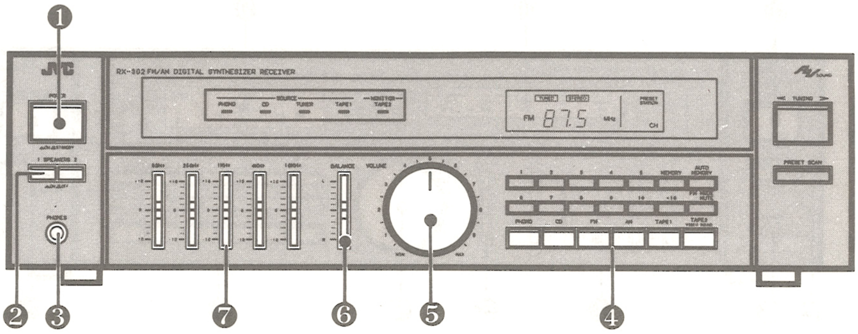
❾ *Tuner Display Window*

The Tuner Display Window indicators provide information on AM and FM broadcast reception. The Tuner Display Window is also used to set and recall preset radio stations.

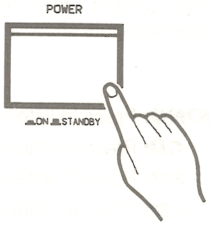
❿ *Source Indicator Lights*

These five lights tell you which stereo source(s) are being played through the receiver. The TAPE 2 MONITOR indicator may turn on or off independently while other indicators are on.

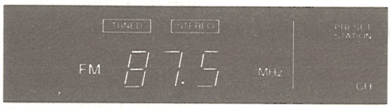
Basic Operation


❶
JVC
RX-302 FM/AM DIGITAL SYNTHESIZER RECEIVER
SOURCE
PHONO
CD
TUNER
TAPE1
MONITOR
TAPE2
FM 87.5 MHz
CH
POWER
SPEAKERS
PHONES
BALANCE
VOLUME
TUNING
PRESET SCAN
❷ ❸ ❼ ❻ ❺ ❹

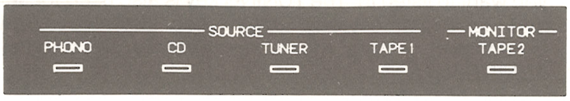
❶ To turn on your receiver, press the POWER switch on.


POWER
ON STANDBY

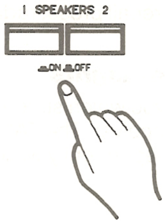
The Tuner Display Window lights up.


TUNED
STEREO
PRESET STATION
FM
87.5
MHz
CH

The Source Indicator Lights show the source that was last played.


SOURCE
MONITOR
PHONO
CD
TUNER
TAPE1
TAPE2

❷ Select the speaker system you want by pressing the SPEAKER 1 switch, the SPEAKER 2 switch, or both switches.

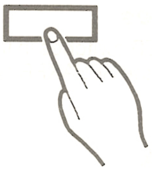

1 SPEAKERS 2
ON OFF

Note: *If just one pair of speakers is connected to the receiver and you press both SPEAKER switches, no sound will be heard.*

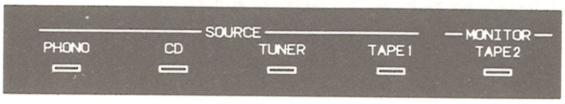
❸ If you want to listen through headphones, plug them in to the Headphones Jack.

Note: *If you do not want sound coming through the speakers, press both SPEAKER switches off.*

❹ Press one of the Source Selector buttons to choose the stereo source you want to listen to.



The corresponding Source Indicator Light shows which stereo source is being played.


SOURCE
MONITOR
PHONO
CD
TUNER
TAPE1
TAPE2

Note: *Operate the stereo sources (for example: CD, phono, tape deck) by following the appropriate instruction manuals.*

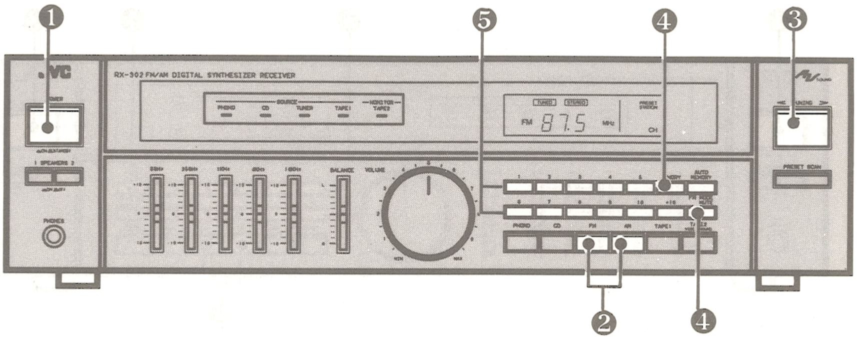
❺ Turn the VOLUME control to adjust the volume.

❻ Slide the BALANCE control up or down to set the balance between the left and right speakers.

❼ Adjust the tone to your liking.

Slide the S.E.A. control knobs up to enhance tonal effects, down to lessen them.

Listening to Radio Broadcasts

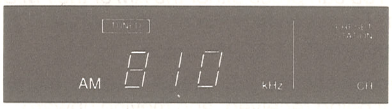

❶
❺
❹
❸
RX-302 FM/AM DIGITAL SYNTHESIZER RECEIVER
FM 87.5 MHz
❷
❹

Selecting an AM or FM Station

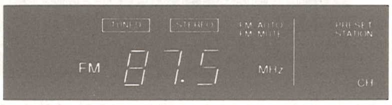
❶ Turn the receiver on.

❷ Press the AM or FM Source Selector button.

- If you pressed the AM Source Selector button, AM and kHz appear in the Tuner Display Window. The receiver tunes in the last AM frequency that was played.


TUNED
PRESET STATION
AM 810 kHz
CH

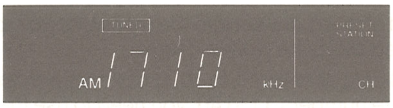
- If you pressed the FM Source Selector button, FM and MHz appear in the Tuner Display Window. The receiver tunes in the last FM frequency that was played.


TUNED
STEREO
FM AUTO FM MUTE
PRESET STATION
FM 87.5 MHz
CH

❸ Use the TUNING key to find the radio frequency you want to listen to. Press the right side of the key to find higher frequencies; press the left side of the key to find lower frequencies.

When you release the TUNING key, the receiver auto-tunes until it tunes a station in. You can stop auto-tuning by pressing any tuner button.

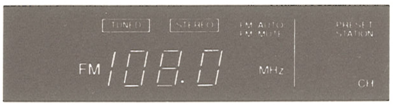
The TUNED Indicator lights when the receiver is tuned precisely to either an AM or FM station.


TUNED
PRESET STATION
AM 1710 kHz
CH

Note: *Tap the TUNING key momentarily to change the frequency in steps of 10 kHz. Hold the TUNING key down to change the frequency faster, then tap the key to set the frequency precisely.*

Important! *If the receiver is tuned to a station but the TUNED Indicator doesn't light, try adjusting the antenna for better reception.*

When you tune to an FM station, the receiver automatically plays in stereo; the STEREO indicator and the FM MUTE/AUTO indicator are lighted.


TUNED
STEREO
FM AUTO FM MUTE
PRESET STATION
FM 108.0 MHz
CH

❹ Press the FM MODE/MUTE Button when listening to an FM station with a weak or noisy signal. Reception will be improved, although you will be listening to monaural (non-stereo) sound.

The STEREO indicator and the FM MUTE/AUTO indicators disappear.

Presetting an AM or FM Station

You can preset a total of 40 radio stations into the receiver's memory. You preset a station by assigning it a channel number (1 to 40). Once a station has been preset, you can tune to that station using the Numeric keys rather than the TUNING key. (See "Using Numeric Keys" on page 8.)

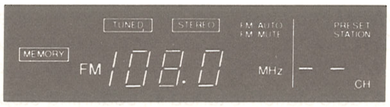
❶ Turn the receiver on.

❷ Press the AM or the FM Source Selector button.

❸ Use the TUNING key to tune in the radio station you want to preset.

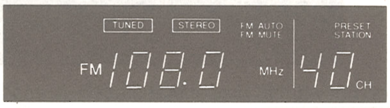
❹ Press the MEMORY button.

The MEMORY indicator lights for about five seconds.


TUNED
STEREO
FM AUTO FM MUTE
PRESET STATION
MEMORY
FM 108.0 MHz - -
CH

❺ Using the Numeric keys, enter the channel number (1 to 40) you want to assign to the station.

The channel number appears in the Tuner Display Window.

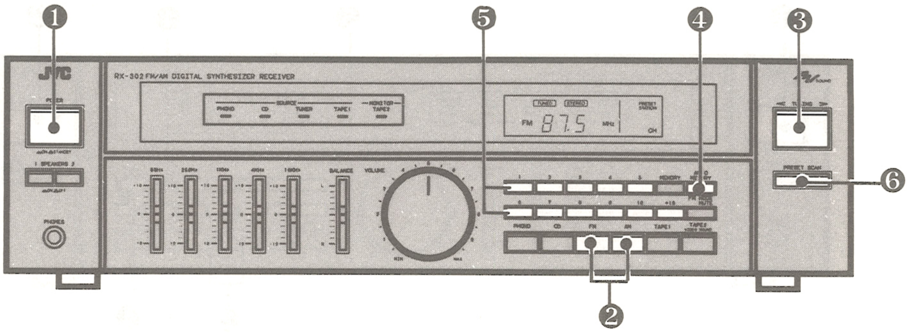

TUNED
STEREO
FM AUTO FM MUTE
PRESET STATION
FM 108.0 MHz 40 CH

Important! *You must enter the channel number while the MEMORY indicator is lighted. If the indicator turns off too soon, press the MEMORY button and start again.*

Repeat the above process to preset additional radio stations.

Note: *Preset stations are held in the receiver's memory as long as the receiver is plugged in. If the receiver is unplugged, or if a power failure occurs, the receiver will keep the presets for two or three days before erasing them.*

Using Auto-Memory and Preset Scan


❶
❺
❹
❸
❻
❷
JVC
RX-302 FM/AM DIGITAL SYNTHESIZER RECEIVER
FM 87.5 MHz
CH
PHONES

Auto-Memory

The Auto-Memory function lets you scan a series of radio stations, and preset the ones you want into the receiver's memory. The receiver will scan radio frequencies and preset the stations, as they are tuned, with ascending channel numbers.

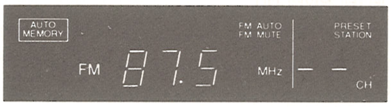
❶ Turn the receiver on.

❷ Press the AM or the FM Source Selector button.

❸ Use the TUNING key to find the lowest frequency you want to start scanning from.

❹ Press the AUTO MEMORY button.

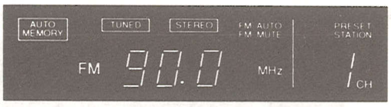
The AUTO-MEMORY indicator lights for about five seconds.


AUTO MEMORY
FM AUTO FM MUTE
PRESET STATION
FM
87.5
MHz
– –
CH

❺ Using the Numeric keys, enter the lowest channel number (1 to 40) you want to assign a preset.

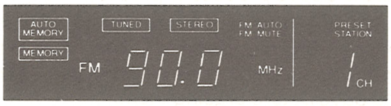
***Important!** You must enter the channel number while the AUTO MEMORY indicator is lighted. If the indicator turns off too soon, press the AUTO MEMORY button and start again.*

When a radio station is tuned in, scanning stops. The TUNED indicator lights, and the first preset channel number blinks on and off for about five seconds.


AUTO MEMORY
TUNED
STEREO
FM AUTO FM MUTE
PRESET STATION
FM
90.0
MHz
1
CH

❹ If you do not want to preset that station, press the AUTO MEMORY button while the channel number is blinking. The receiver will start scanning again.

When the station is preset, the MEMORY indicator lights and scanning starts again.


AUTO MEMORY
MEMORY
TUNED
STEREO
FM AUTO FM MUTE
PRESET STATION
FM
90.0
MHz
1
CH

This process continues automatically until all 40 channels are filled or the upper frequency limit is reached.

Preset Scan

The Preset Scan function lets you scan through your preset radio stations, stopping at any station you want.

❶ Turn the receiver on.

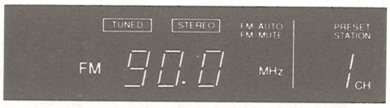
❷ Press the AM or the FM Source Selector button.

***Note:** You can press either the AM or the FM Source Selector button. The receiver will scan both AM and FM presets.*

❻ Press the PRESET SCAN button.

The receiver scans your preset stations, starting with the frequency being received, and moving upward.

Each preset station is received for about four seconds with the channel number blinking.


TUNED
STEREO
FM AUTO FM MUTE
PRESET STATION
FM
90.0
MHz
1
CH

❻ If you want to listen to one of the preset stations, press the PRESET SCAN button again while the channel number is blinking.

If you do not stop at any station, the receiver will scan through the presets once, then return to the station tuned before scanning started.

Using Numeric Keys

Preset stations are set into the receiver's memory and recalled using the Numeric keys.

To indicate numbers 1 to 10, press the appropriate key. To indicate numbers 11 to 40, you need to use the +10 key and one other key. See the following examples:

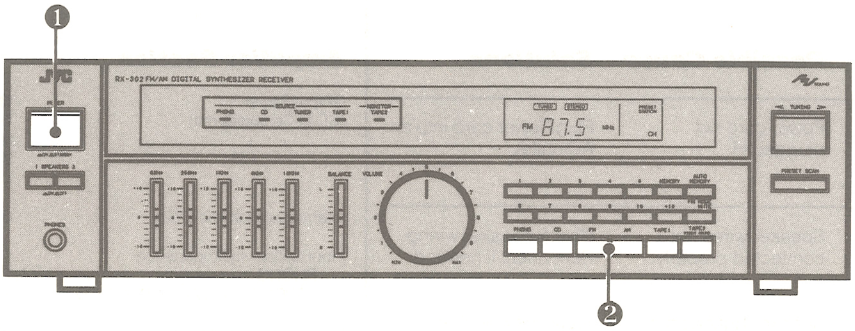
To indicate **17:** press the **+10** key, then the **7** key

To indicate **20:** press the **+10** key, then the **10** key.

To indicate **25:** press the **+10** key twice, then the **5** key.

To indicate **40:** press the **+10** key three times, then the **10** key.

Recording Tapes



If you have a tape deck connected to the TAPE 1 or TAPE 2/VIDEO SOUND jacks of the receiver, you can record other stereo sources onto a tape.

❶ Turn the receiver on.

❷ Press the Source Selector button for the source you want to record from.

Note: *When recording from TAPE 2 TO TAPE 1, press the TAPE 2/VIDEO SOUND button and another button other than TAPE 1.*

- Use the tape deck to record the source as it is playing. Follow the instructions for your tape deck.

Note: *Adjusting the VOLUME control of the receiver will not affect the recording level. Follow the instructions for your tape deck.*

Three-Head Tape Decks

If you have a three-head tape deck, you can use it to monitor the sound being recorded. Connect the tape deck to the TAPE 2/VIDEO SOUND jacks of the receiver and proceed as follows:

- Start recording the source onto the TAPE 2 deck.
- When the TAPE 2 MONITOR Indicator Light is off, you hear the sound of the source playing through the speakers.
- Press the TAPE 2/VIDEO SOUND button. The TAPE 2 MONITOR Indicator Light will light. Now you hear the sound of the recording immediately as it is made on the tape.
- By pressing the TAPE 2/VIDEO SOUND button on and off, you can compare the sound quality of the source with the quality of the tape recording being made.

Troubleshooting

Problem	Possible Cause	Solutions
Receiver does not play; Indicators do not light up.	Power cord not plugged in.	Plug Power cord into an AC outlet.
No sound from the speakers.	Speaker wires not connected properly.	Check speaker wiring. Reconnect if needed.
	Speaker Buttons not set correctly.	Press the Speaker Buttons in or out as desired.
Sound from one speaker only.	Speaker wires not connected properly.	Check speaker wiring. Reconnect if needed.
	Balance Control may be set to one extreme.	Slide Balance Control so both speakers have sound.
Continuous hiss or buzzing during FM reception.	Incoming signal may be too weak.	Adjust antenna.
		Station may be too far away to receive.
	Incorrect antenna used.	Check with your dealer to make sure you are using the correct type of antenna.
	Antenna not connected properly.	Make sure all antennas are properly connected.
Occasional crackling noise during FM reception.	Ignition noise from automobiles.	Move the antenna further away from the road.
Loud hum during record playing.	Turntable not connected properly.	Check the turntable manual. Ground the turntable if required.
	Interference from other electrical appliances.	Try moving the power cord or plugging into a different outlet.
Howling during record playing.	Turntable too close to a speaker.	Move speakers away from the turntable.

Specifications – RX-302BK

Amplifier Section

Output Power: (CD in Speakers out)	**60 watts per channel, min. RMS, both channels driven into 8 ohms from 20 Hz to 20 kHz, with no more than 0.03% total harmonic distortion.**
Intermodulation Distortion	0.03% at 60 watts
Input Sensitivity/Impedence	
PHONO	2.5 mV/47k ohms
TAPE1 PLAY, TAPE 2 PLAY, CD	200 mV/47k ohms
Recording Output Level	200 mV
Frequency Response	
CD, TAPE 1, TAPE 2	20 Hz to 20 kHz ± 1dB
Signal-to-Noise Ratio	
PHONO	70dB ('66 IHF), 78dB ('78 IHF REC OUT)
CD, TAPE 1, TAPE 2	91dB ('66 IHF), 80dB ('78 IHF)

S.E.A. Section

Center Frequencies	63 Hz, 250 Hz, 1kHz, 4kHz, 16kHz
Control Range	± 10dB

FM Tuner Section

Tuning Range	87.5 MHz to 108.0 MHz
Usable Sensitivity	Mono: 10.8 dBf, (0.95 µV/75 ohms)
50 dB Quieting Sensitivity	Mono: 16.3 dBf, (1.8 µV/75 ohms) Stereo: 38.3 dBf, (22.5 µV/75 ohms)
Signal-to-Noise Ratio (IHF-A net, 85 dBf)	Mono: 80 dB Stereo: 73 dB
Total Harmonic Distortion (1 kHz)	Mono: 0.15% Stereo: 0.2%
Frequency Response	30 Hz to 15 kHz, +0.5 dB, −3 dB
Capture Ratio (85 dBf)	1.5 dB
Alternate Channel Selectivity	60 dB, ± 400 kHz
IF Response Ratio	85 dB (at 98 MHz)
Stereo Separation	40 dB (at 1 kHz)

AM Tuner Section

Tuning Range	530 kHz to 1,710 kHz
Sensitivity	30 µV* (external) 300 µV/m* (loop antenna)
Signal-to-Noise Ratio	50 dB (100mV/m)
Selectivity	25 dB, (± 10 kHz)

General

Power Requirements	AC 120V∿, 60 Hz
Power Consumption	220 watts, 290 VA
Dimensions (Width x Height x Depth)	$17\frac{3}{16}$ x $4\frac{5}{16}$ x $11\frac{3}{4}$ inches (435 x 118 x 298 mm)
Weight	17.1 lbs. (7.7 kg)

* Measured at 1,000 kHz.
Design and specifications subject to change without notice.

Removal Procedures

■ Removing the metal cover

1. Remove the 4 screws on both sides.
2. Remove the 2 screws located on the top of rear panel.
3. Slightly open both sides of the metal cover, to the left and right, and raise the rear side.
   Then slowly lift it up and straight backward.

■ Removing the bottom plate

1. Remove the metal cover.
2. Remove the 17 screws (Ⓐ & Ⓑ). See Fig.1 .

■ Removing the front panel

1. Remove the metal cover.
2. Remove the 5 screws (Ⓑ,Ⓒ) and 3 plastic rivets (Ⓓ).
   See Fig-1 & Fig-2.
3. Pull out the main volume knob and remove the nut fixing the volume.
4. Pull out the 5 knobs for S.E.A. and 1 for BALANCE
5. Remove the screw (Ⓔ). See Fig. 2.
   (for securing earth rug)
6. Pull out the 7 flat wires from their connectors(P101,P301,P302,P303,P304,P701 and P802).
   * Pull off a flat wire from P105 for selectable AC unit especially.
7. Cut off the two tie bands (Ⓕ).
8. Remove the 8 screws (Ⓖ). And take off the PC boards from the panel.
   See Fig-3.

■ Removing the power transistors

1. Remove the metal cover and the bottom plate.
2. Unsolder the defective power transistor.
3. Remove the screw holding the power transistor using a pair of pliers, a wrench or a bent screwdriver.

■ Removing the parts on the SEA & Display PC Board (ENC-070)

1. Remove the tuner pc board (ENA-095).
   Remove the 3 screws (Ⓗ) on the rear panel and the 2 screws (Ⓘ) holding the tuner pc board . See Fig. 2 & 4 .
2. Take off the defective part from the pc board (ENC-070).

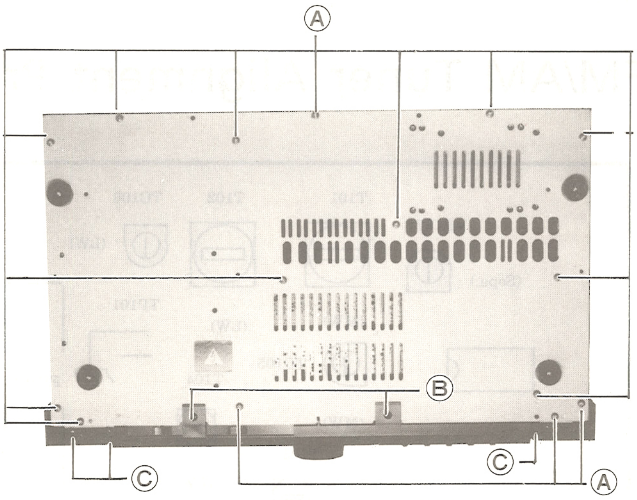


Fig . 1

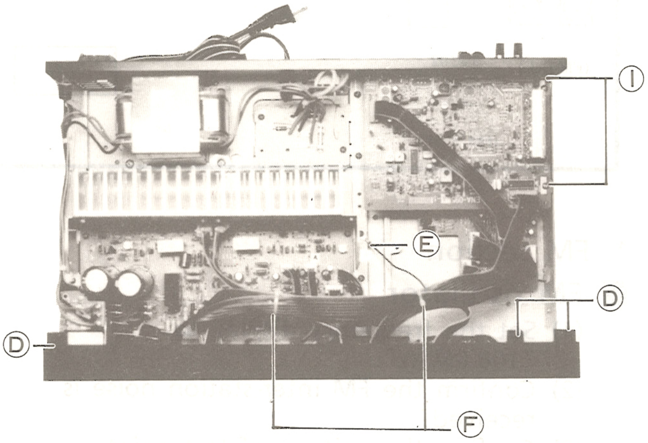


Fig . 2

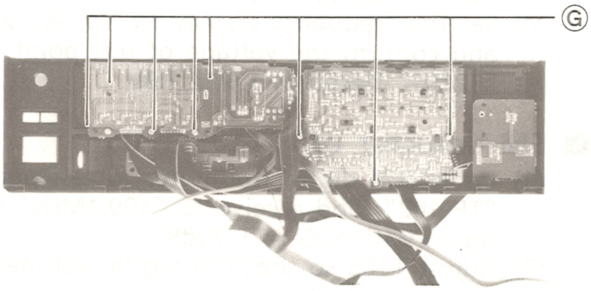


Fig . 3

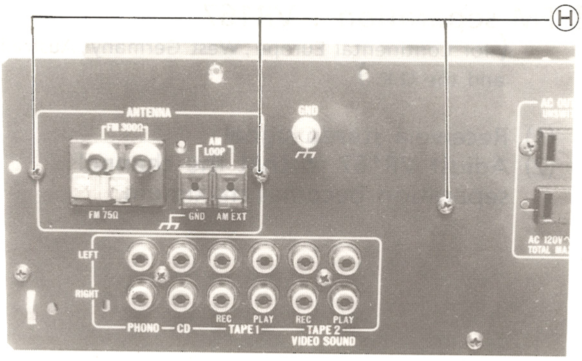
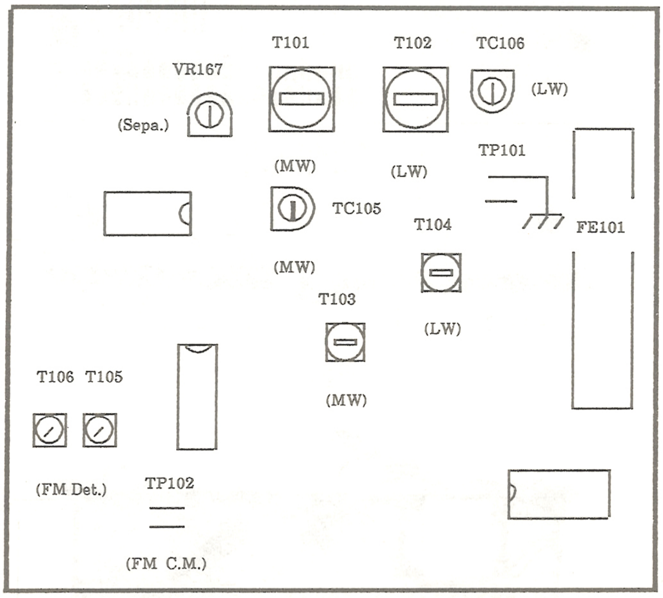


Fig . 4

FM/AM Tuner Alignment Procedures



1. FM section

■ FM oscillator

(1) Set the frequency display to "108.0MHz".
(2) Confirm the FM inter-station noise is received.
(3) Confirm the voltage of test point "TP101" becomes 8.0V ± 2.0V.
(4) Set the frequency display to "87.5MHz" and confirm the voltage of test point "TP101" becomes 1.6V ± 1.0V.

■ FM detector coil : T105, T106

(1) Connect a digital voltmeter to test point "TP 102", and receive to "100.1MHz" signal with SSG ATT 70dB.
(2) Adjust T105 so that the digital voltmeter reads 0 ± 1.5mV.
(3) At the same time, Adjust T106 so that the distortion of the output is minimised.

■ FM separation : VR167

(for Continental Europe, West Germany, Australia and the U.K.)

(1) Receive a stereo signal
(2) Adjust VR167 so that the channel separation becomes maximum.

2. MW section

Note : [ ] : for the U.S.A. and Canada
( ) : Australia, the U.K. and Continental Europe
{ } : Other countries Channel space 9KHz
「 」: Other countries Channel space 10KHz

■ MW oscillator : T103

(1) Set the frequency display to [530KHz] (522KHz) {531KHz} 「530KHz」 and confirm the voltage of test point TP101 becomes 0.9V ± 0.2V .
(2) Set the frequency display to [1710KHz] (1629KHz) {1602KHz } 「 1600KHz 」 and confirm the voltage of test point TP101 becomes [8.0V ± 0.8V] (7.5V ± 0.8V) { 7.2V ± 0.7V } 「 7.2V ± 0.7V 」.
(3) If its voltage exceeds the allowance, adjust T103 to obtain the voltage.

■ MW antenna coil : T101

(1) Connect a loop antenna to the "AM Loop" terminal on the rear panel.
(2) Adjust T101 to obtain the best receiving sensitivity on 600KHz or 603KHz.

■ MW antenna trimmer : TC105

(1) Adjust TC105 to obtain the best receiving sensitivity on 1400KHz or 1404KHz.

3. LW section (for RX-302LBK)

Note : [ ] for Italy

■ LW oscillator : T104

(1) Set the frequency display to 144KHz and adjust T104 so that the voltage of TP101 becomes 0.8V ± 0.4V [0.8V ± 0.1V].
(2) Set the frequency display to 353KHz [290KHz] and confirm the voltage of test point TP101 becomes 7.7V ± 0.6V [5.7V ± 0.5V].

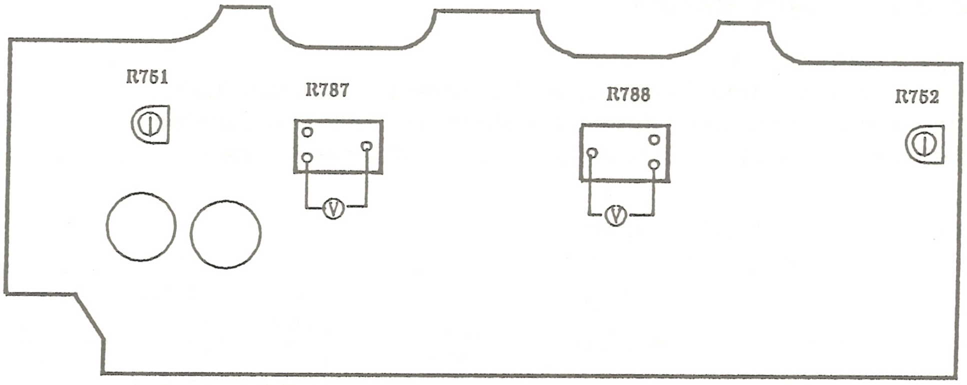
■ LW antenna coil : T102

(1) Connect a loop antenna to the "AM Loop" terminal on the rear panel.
(2) Adjust T102 to obtain the best receiving sensitivity on 164KHz [164KHz].

■ MW antenna trimmer : TC106

(1) Adjust TC106 to obtain the best receiving sensitivity on 353KHz [245KHz].

Power Amplifier Adjustment Procedures

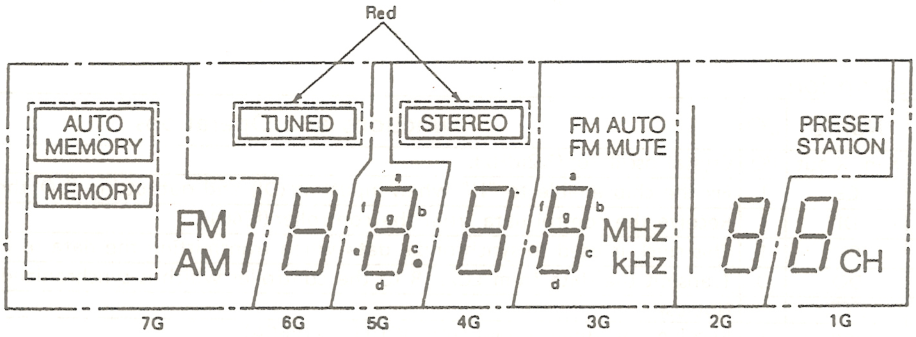

R751
R787
R788
R752
V
V

Idling Current

(1) Turn R751 and R752 fully counterclockwise before the power switch on.
(2) Warm up at least 5 minutes before adjustment.
(3) Must keep the heatsink to prevent overheating before adjustment.
(4) Set the volume control to minimum during this adjustment.
(5) Connect a DC voltmeter to R787 resistor's leads for left channel, or to R788 for right channel.
(6) Adjust R751 for left channel, or R752 for right channel, so that the DC voltmeter becomes 2mV ~ 7mV.

FL Display Tube Internal Connection

Grid Layout


Red
AUTO MEMORY
MEMORY
TUNED
STEREO
FM AUTO
FM MUTE
PRESET STATION
FM
AM
a
b
c
d
f
g
MHz
kHz
CH
7G
6G
5G
4G
3G
2G
1G

Anode Connection

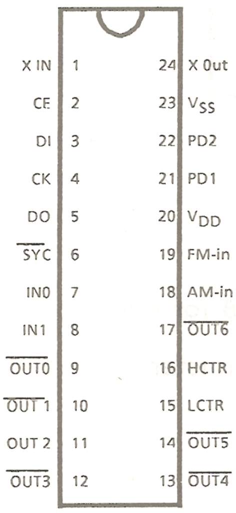
Grid (Pin No.) / Segment (Pin No.)	7 G (10)	6 G (12)	5 G (15)	4 G (18)	3 G (21)	2 G (27)	1 G (31)
S1 (9)		TUNED	●	STEREO	FM AUTO FM MUTE	PRESET STATION	CH
S2 (8)	AUTO MEMORY	a	a	a		a	a
S3 (6)		b	b	b	MHz	b	b
S4 (5)	MEMORY	c	c	c	kHz	c	c
S5 (11)	CANCEL	d	d	d	g	d	d
S6 (13)	FM	e	e	e	f, c	e	e
S7 (14)	AM	f	f	f	b, e	f	f
S8 (16)	/	g	g	g	a, d	g	g

Description of ICs

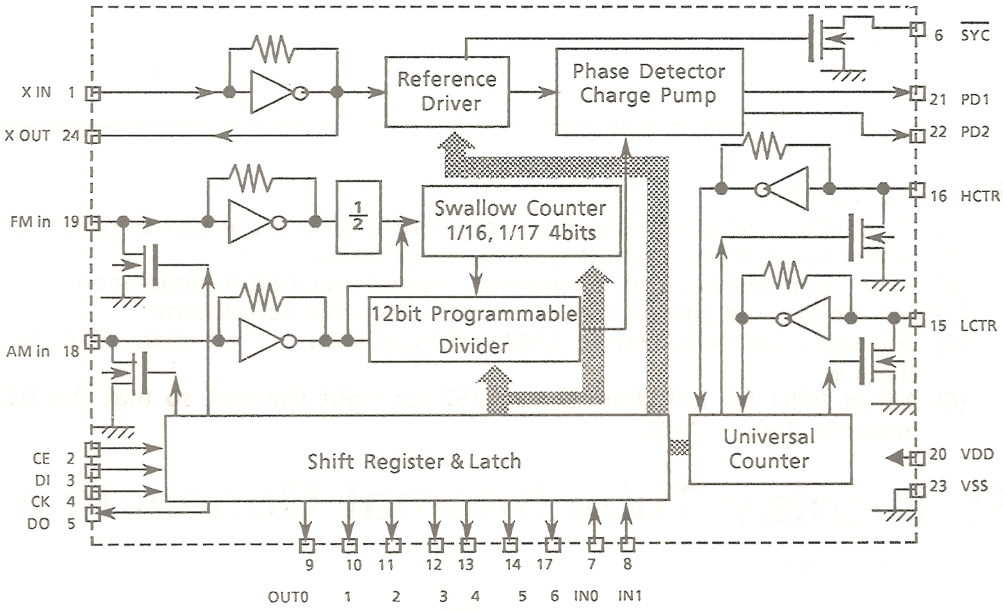
■ IC102 : LC7218 (PLL Synthesizer)

1. The main function descriptions
   (1) It makes the local oscillation frequency by the control data from IC501.
   (2) Decode the control signal and transmit the signal for receiving conditions.
   (3) For the best tuning, count the internal-frequency and transmit the data to IC501.

2. Terminal Layout


X IN 1
CE 2
DI 3
CK 4
DO 5
SYC 6
IN0 7
IN1 8
OUT0 9
OUT 1 10
OUT 2 11
OUT3 12
24 X Out
23 Vss
22 PD2
21 PD1
20 VDD
19 FM-in
18 AM-in
17 OUT6
16 HCTR
15 LCTR
14 OUT5
13 OUT4

3. Block Diagram


X IN 1
X OUT 24
FM in 19
AM in 18
CE 2
DI 3
CK 4
DO 5
Reference Driver
Phase Detector Charge Pump
1/2
Swallow Counter 1/16, 1/17 4bits
12bit Programmable Divider
Shift Register & Latch
Universal Counter
6 SYC
21 PD1
22 PD2
16 HCTR
15 LCTR
20 VDD
23 VSS
9
10
11
12
13
14
17
7
8
OUT0
1
2
3
4
5
6
IN0
IN1

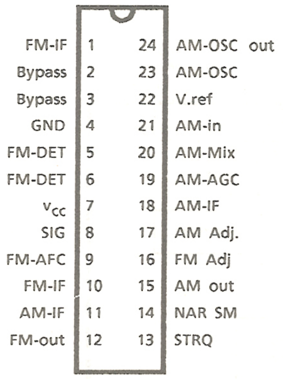
4. Pin Function Description

Pin No.	Symbol	Name	I/O	Functions and Operations
1,24	X in , X out	X in , X out	I/O	Crystal oscillator (7.2MHz).
2	CE	CE	I	Fix the chip enable to "H" when inputting (DI) and outputting (DO) the serial data.
3	DI	DI	I	Receive the control data from the controller (IC401).
4	CK	CK	I	This clock is used to synchronize data when transmitting the data of DI and DO.
5	DO	DO	O	Transmit the data from LC7218 to the controller which is synchronized with CK.
6	$\overline{\text{SYC}}$	$\overline{\text{SYC}}$	—	Not use
7	IN0	Tuned in	I	Receive the tuned signal from IC104 (LA1266A).
8	IN1	Stop in	I	GND
9	OUT 0	POWER	---	Not use
10	OUT 1	QSC	---	Not use
11	OUT2	MONO	O	FM MONO : H FM STEREO : L
12	OUT3	FM	O	Active Low
13	OUT4	MW	O	Active Low
14	OUT5	LW	O	Active Low
15	LCTR	AM-IF	I	Universal counter input for AM-IF from IC104 (LA1266A).
16	HCTR	FM-IF	I	Universal counter input for FM-IF from IC104(LA1266A).
17	OUT6	IF REQ	O	Output the "IF-signal request" to IC104 when the pin-7 (tuned in) goes to "H".
18	AM in	AM osc	I	Input the local oscillator signal of AM.
19	FM in	FM osc	I	Input the local oscillator signal of FM.
20	V_{DD}	V_{DD}	—	This is a terminal of power supply.
21	PD1	PD1	O	PLL charge pump output : When the local oscillator signal frequency is higher than the reference frequency, high level signals will output. When it is lower than the reference frequency, low level signals will output. When it is same as reference frequency signals, it will be floating.
22	PD2	PD2	O	Not use
23	Vss	Vss	—	GND

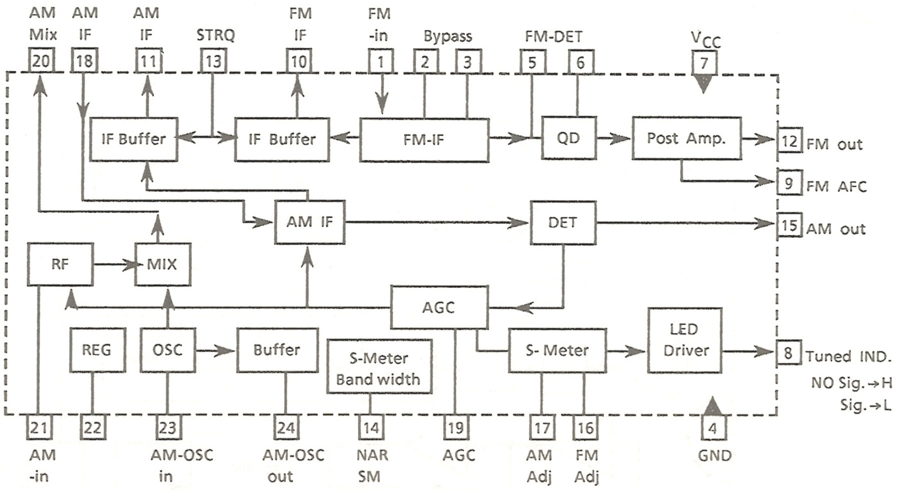
■ LA1266A (IC104) : FM AM IF AMP & detector

1. The main function descriptions
   (1) Amplify and detect of FM intermodulation frequencies.
   (2) It has local oscillator and mixer for AM, and amplify the AM-IF signal.

2. Top View


FM-IF 1
Bypass 2
Bypass 3
GND 4
FM-DET 5
FM-DET 6
Vcc 7
SIG 8
FM-AFC 9
FM-IF 10
AM-IF 11
FM-out 12
24 AM-OSC out
23 AM-OSC
22 V.ref
21 AM-in
20 AM-Mix
19 AM-AGC
18 AM-IF
17 AM Adj.
16 FM Adj
15 AM out
14 NAR SM
13 STRQ

3. Block Diagram


AM Mix 20
AM IF 18
AM IF 11
STRQ 13
FM IF 10
FM -in 1
Bypass 2 3
FM-DET 5 6
Vcc 7
IF Buffer
IF Buffer
FM-IF
QD
Post Amp.
12 FM out
9 FM AFC
AM IF
DET
15 AM out
RF
MIX
AGC
REG
OSC
Buffer
S-Meter Band width
S- Meter
LED Driver
8 Tuned IND.
NO Sig.→H
Sig.→L
21 AM -in
22
23 AM-OSC in
24 AM-OSC out
14 NAR SM
19 AGC
17 AM Adj
16 FM Adj
4 GND

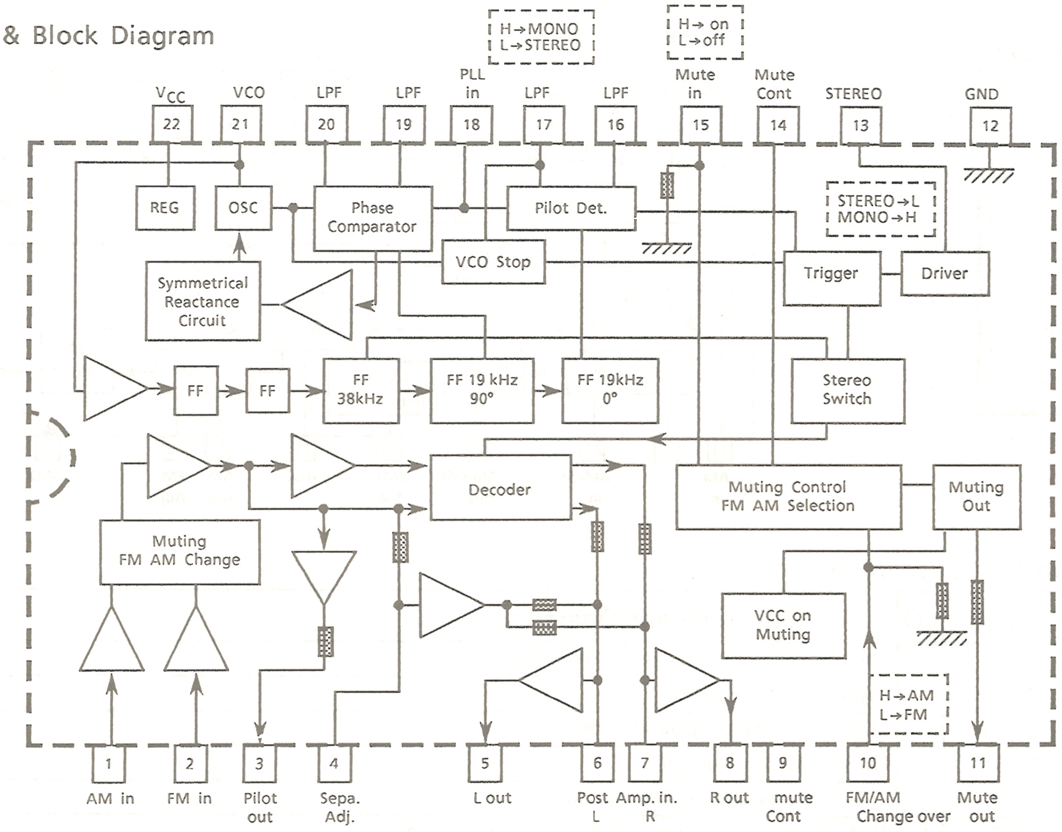
4. Pin Function Description

Pin No.	Symbol	I/O	Functions and Operations
1	FM IF	I	This is an input terminal of FM IF Signal.
2,3	Bypass		Bypass of FM IF Amp.
4	GND		This is the device ground terminal.
5,6	FM DET		FM detect transformer.
7	V_{CC}		This is the power supply terminal.
8	SIG	O	Mute drive and signal stop drive output when tuning.
9	FM AFC	O	This is an output terminal of voltage for FM - AFC.
10	FM IF out	O	When the IF REQ signal of IC102(LC7218) applies to pin13, the signal of FM IF outputs.
11	AM IF out	O	When the IF REQ signal of IC102(LC7218) applies to pin13, the signal of AM IF outputs.
12	FM out	O	FM detection output.
13	STRQ	I	The IF-signals come out from pin10 (FM-IF) or pin11 (AM-IF) while this terminal goes to "High".
14	NAR SM		Control the Band-width of signal meter.
15	AM out	O	AM detection output.
16	FM Adj		For adjust the stop level (or mute level) of FM.
17	AM Adj		For adjust the stop level (or mute level) of AM.
18	AM-IF	I	Input of AM IF Signal.
19	AM-AGC	I	This is an AGC voltage Input terminal for AM.
20	AM-MIX	O	This is an output terminal for AM mixer.
21	AM-IN	I	This is an input terminal for AM RF Signal.
22	V.REF		
23	AM-OSC		This is a terminal of AM Local oscillation circuit.
24	AM-OSC out	O	AM Local Oscillation Signal output.

■ IC105 : LA3401 (FM MPX Detector)

1. The main function descriptions
   (1) Detect the FM Multiplex Signal (Stereo signal).
   (2) When receiving FM Stereo Signal , it outputs the signal for indicator.
   (3) AM / FM Audio Amplifier.

2. Top View & Block Diagram

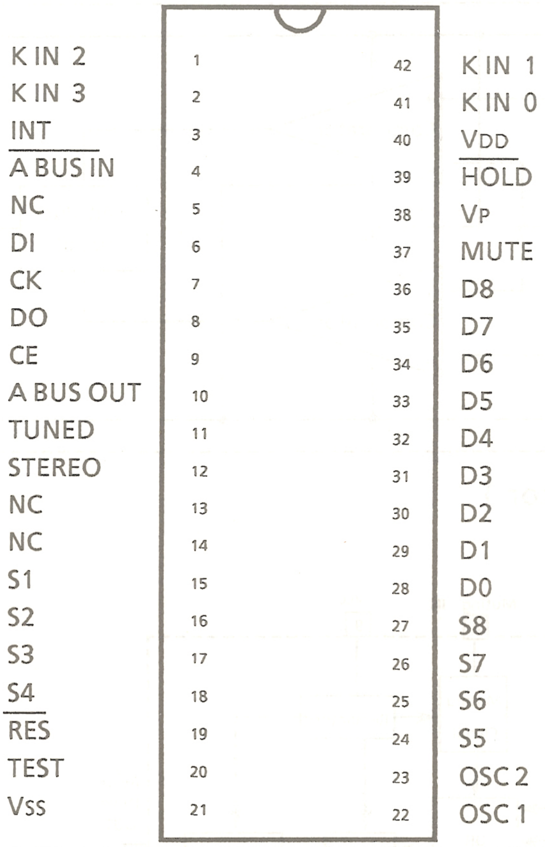

H→MONO
L→STEREO
H→ on
L→off
VCC
VCO
LPF
LPF
PLL in
LPF
LPF
Mute in
Mute Cont
STEREO
GND
22
21
20
19
18
17
16
15
14
13
12
REG
OSC
Phase Comparator
Pilot Det.
STEREO→L
MONO→H
VCO Stop
Trigger
Driver
Symmetrical Reactance Circuit
FF
FF
FF 38kHz
FF 19 kHz 90°
FF 19kHz 0°
Stereo Switch
Decoder
Muting Control FM AM Selection
Muting Out
Muting FM AM Change
VCC on Muting
H→AM
L→FM
1
2
3
4
5
6
7
8
9
10
11
AM in
FM in
Pilot out
Sepa. Adj.
L out
Post Amp. in.
L
R
R out
mute Cont
FM/AM Change over
Mute out

3. Pin Function Description

Pin No.	Symbol	I/O	Functions and Operations
1	AM in		This is an input terminal for AM detection signal.
2	FM in		This is an input terminal for FM detection signal.
3	Pilot out		Output of MPX pilot signal (Connect to Pin18).
4	Sepa. Adj.		Separation adjustment.
5	L. out	O	Left channel signal output.
6	L	O	Reversal output of Pin5.
7	R	O	Reversal output of Pin8.
8	R out	O	Right channel signal output
9	Mute Cont		The mute time is controlled by the connected capacitor when turning the power switch on.
10	FM / AM	I	Change over the FM / AM input. "H" : AM, "L" : FM
11	Mute out	---	Not use
12	GND		Ground terminal.
13	Stereo	O	Stereo indicator output. Stereo : "L", Mono : "H"
14	Mute Cont		The mute time is controlled by the connected capacitor when changing over the FM / AM .
15	Mute in	I	MutE signal input. "H" : Mute on, "L" : Mute off.
16	LPF		Low pass filter of pilot detector.
17	LPF		While this terminal goes to "H", the VCO stop.
18	Pilot in		PLL input.
19	LPF		Loop filter of PLL.
20	LPF		Loop filter of PLL.
21	VCO		Voltage controlled oscillator terminal.
22	V_{CC}		Power supply.

■ IC401 : LC6514B-4054 (Tuner control & FL Driver)

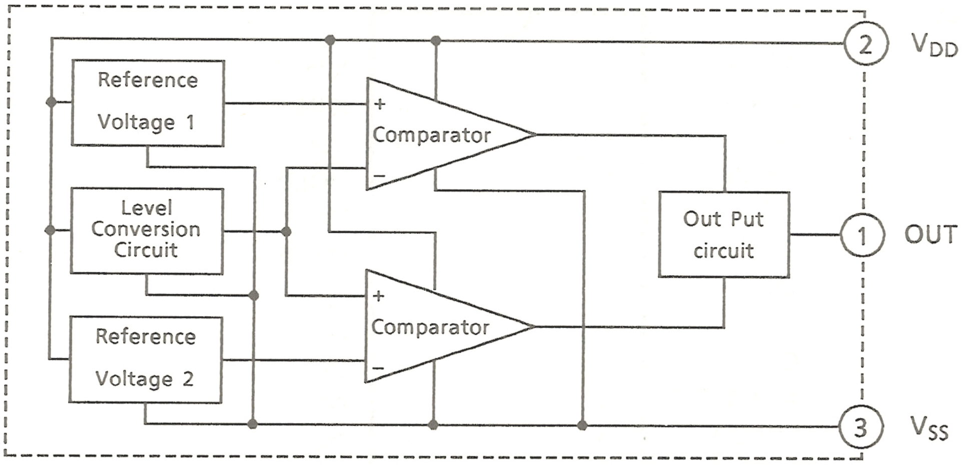
1. Terminal Layout


K IN 2
K IN 3
INT
A BUS IN
NC
DI
CK
DO
CE
A BUS OUT
TUNED
STEREO
NC
NC
S1
S2
S3
S4
RES
TEST
Vss
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
42
41
40
39
38
37
36
35
34
33
32
31
30
29
28
27
26
25
24
23
22
K IN 1
K IN 0
VDD
HOLD
VP
MUTE
D8
D7
D6
D5
D4
D3
D2
D1
D0
S8
S7
S6
S5
OSC 2
OSC 1

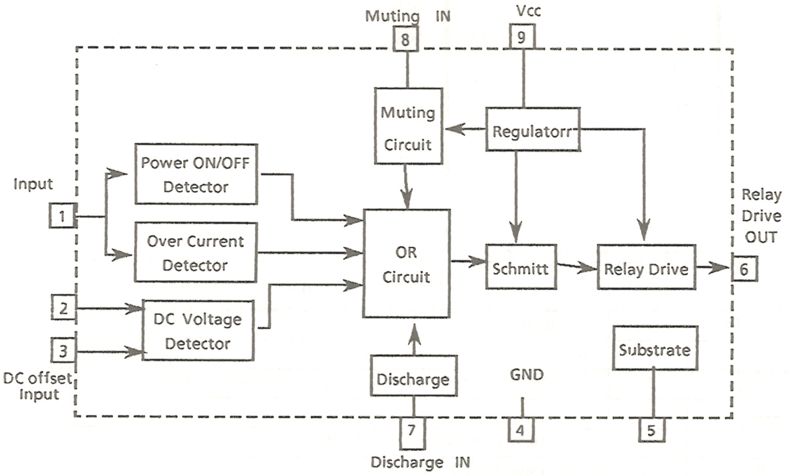
2. Pin functions

Pin No.	Symbol	Name	I/O	Functions and descriptions
1 ~ 2 , 41 ~ 42	PA0 ~ PA3	KIN0 ~ KIN3	I	Key input
3	INT	INT	I	Connect to VDD
4	PBO	A BUS IN	I	Input for DCS (COMPU LINK) system : Connect to VDD
5	PB1	NC	--	
6	PB2	D1	I	Serial Data Bus (Connect to LC 7218)
7	PCO	CK	O	Serial Data Bus (Connect to LC 7218)
8	PC1	DO	O	Serial Data Bus (Connect to LC 7218)
9	PC2	CE	O	Chip Enable Output (Connect to LC 7218)
10	PC3	A BUS OUT	O	Output for DCS (COMPU LINK) System
11	PD0	TUNED IN	I	Input for TUNED indicator
12	PD1	STEREO IN	I	Input for STEREO indicator
13	PD2	NC	--	
14	PD3	NC	--	
15 ~ 18	PE0 ~ PE3	S1 ~ S4	O	Segment output
19	RES	RES	I	Reset input
20	TEST	TEST	I	TEST mode input : GND.
21	VSS	VSS		GND.
22	OSC 1	OSC 1		Crystal oscillator
23	OSC 2	OSC 2		Crystal oscillator
24 ~ 27	PF0 ~ PF3	S5 ~ S8	O	Segment output
28 ~ 31	PG0 ~ PG3	D0 ~ D8		Digit output (grid)
32 ~ 35	PH0 ~ PH3			
36	PI0			
37	PI1	MUTE	O	" H " outputs when turning on the mute
38	VP	VP		- 30V
39	HOLD	HOLD	I	Hold Request input
40	VDD	VDD		+ 5V

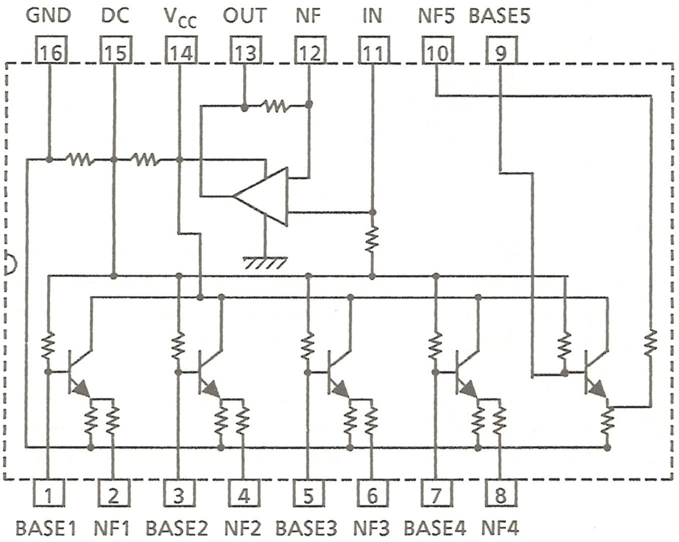
■ IC402 : MN1281 (Reset IC)


Reference Voltage 1
Level Conversion Circuit
Reference Voltage 2
Comparator
Comparator
+
−
+
−
Out Put circuit
2
VDD
1
OUT
3
VSS

■ IC901 : TA7317P (Protector)

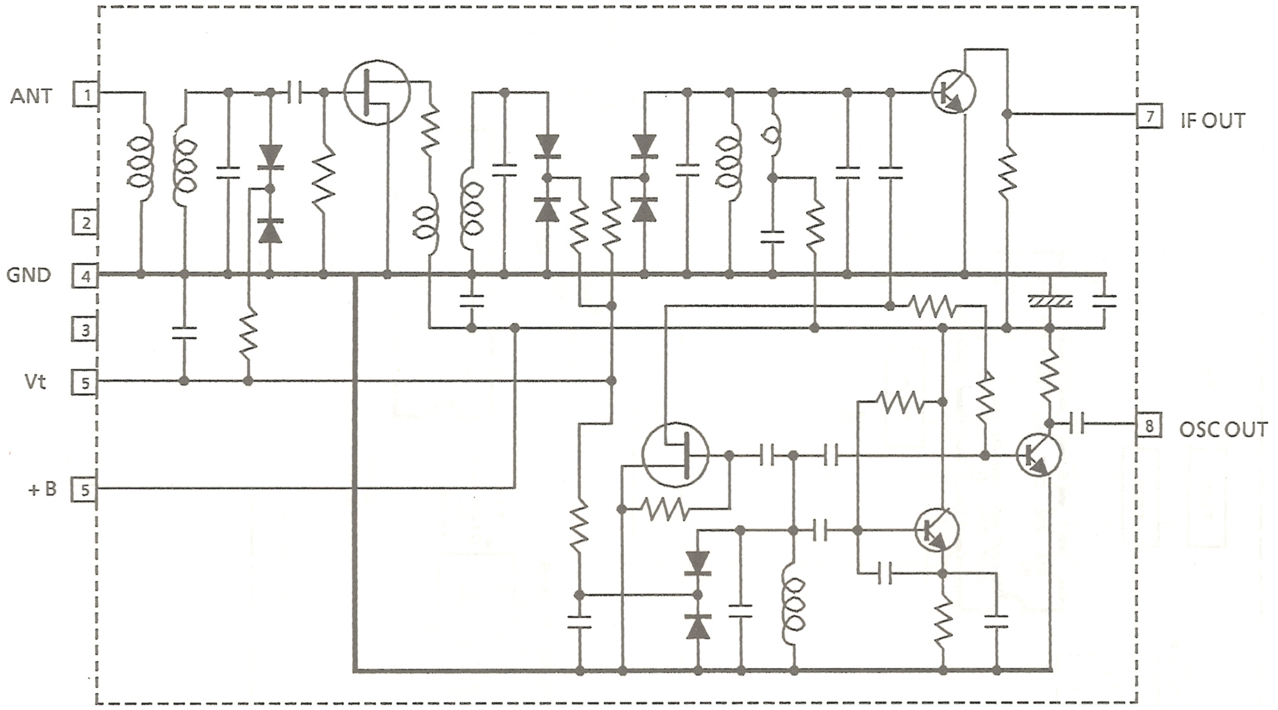

Muting IN
8
Vcc
9
Muting Circuit
Regulatorr
Input
1
Power ON/OFF Detector
Over Current Detector
OR Circuit
Schmitt
Relay Drive
Relay Drive OUT
6
2
3
DC Voltage Detector
DC offset Input
Discharge
GND
Substrate
7
4
5
Discharge IN

■ IC501, IC502 : LA3600S (5 elements filter for S.E.A. Equalizer)

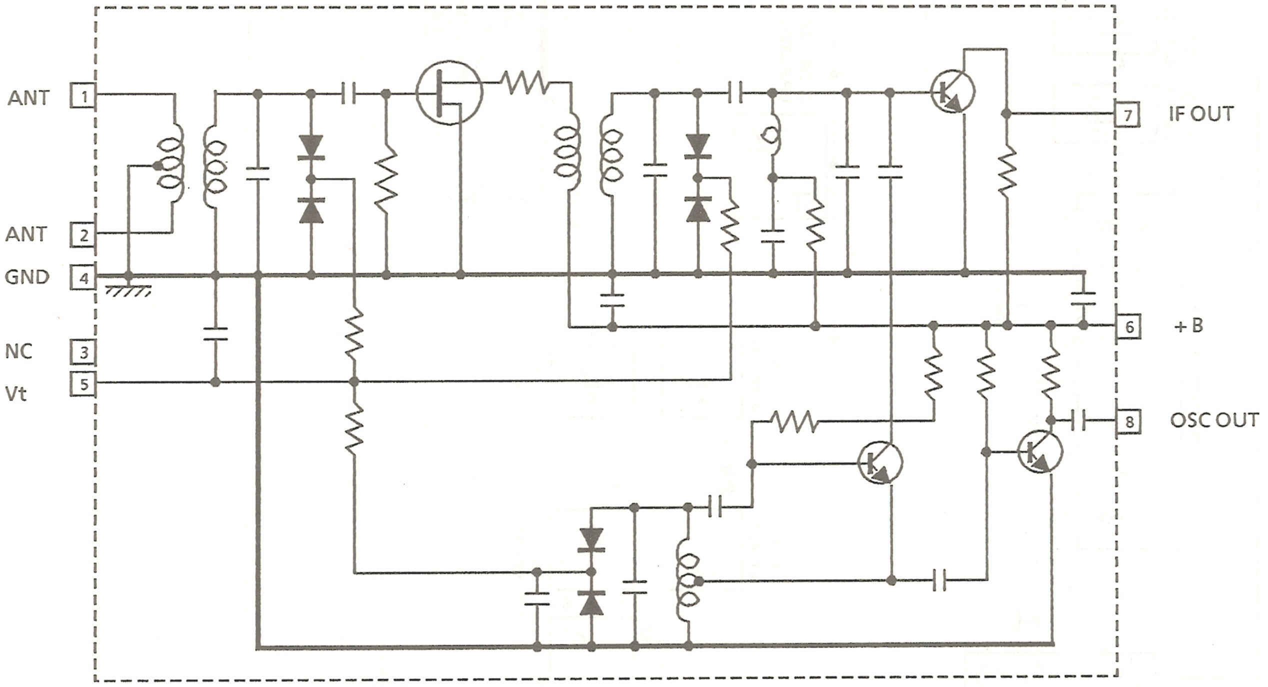

GND
DC
Vcc
OUT
NF
IN
NF5
BASE5
16
15
14
13
12
11
10
9
1
2
3
4
5
6
7
8
BASE1
NF1
BASE2
NF2
BASE3
NF3
BASE4
NF4

Schematic Diagram of Front-End Pack

FE101 : EAF2203-002 (for West Germany and Italy)

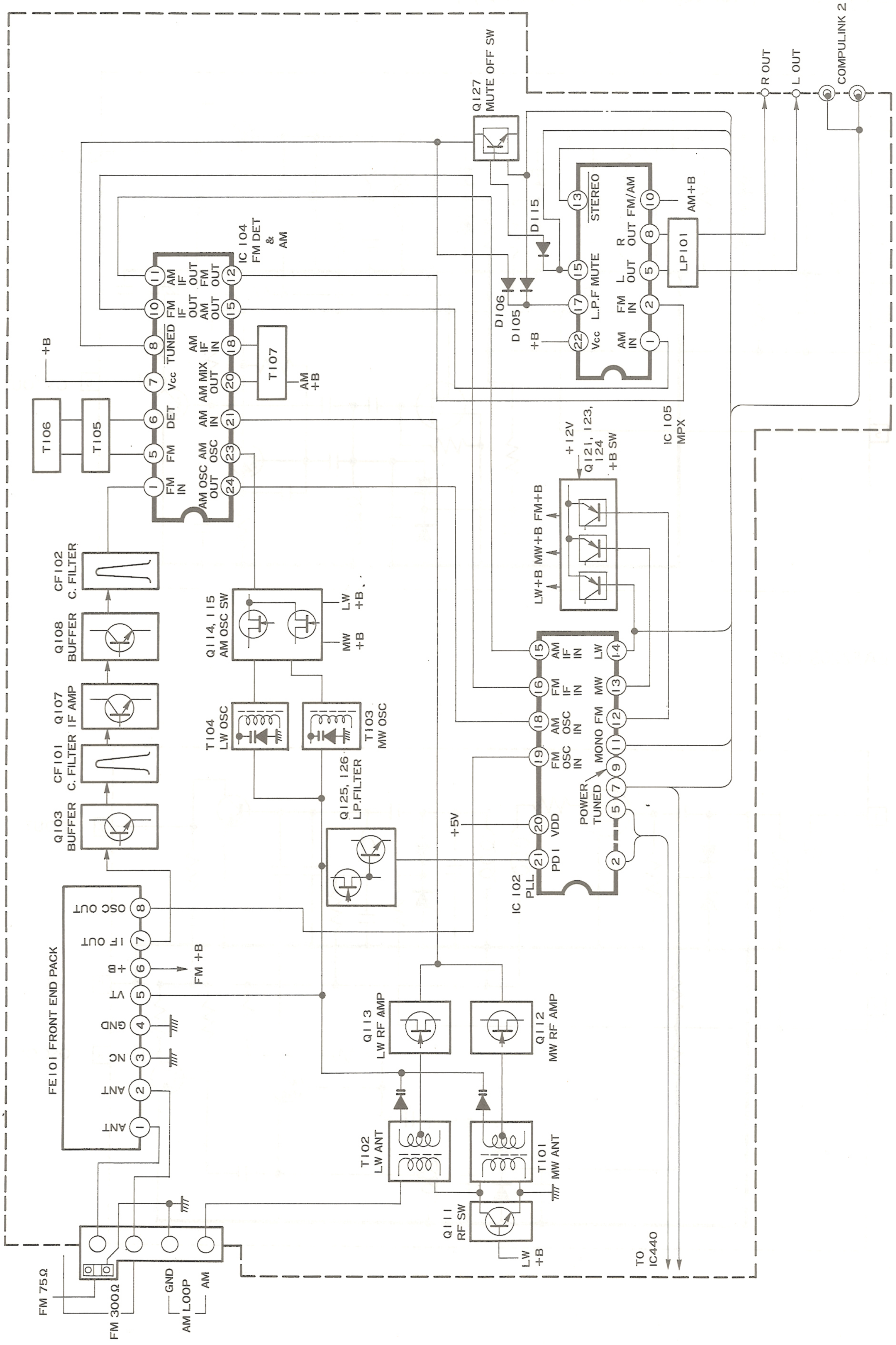

ANT 1
2
GND 4
3
Vt 5
+B 5
7 IF OUT
8 OSC OUT

FE101 : EAF2203-001

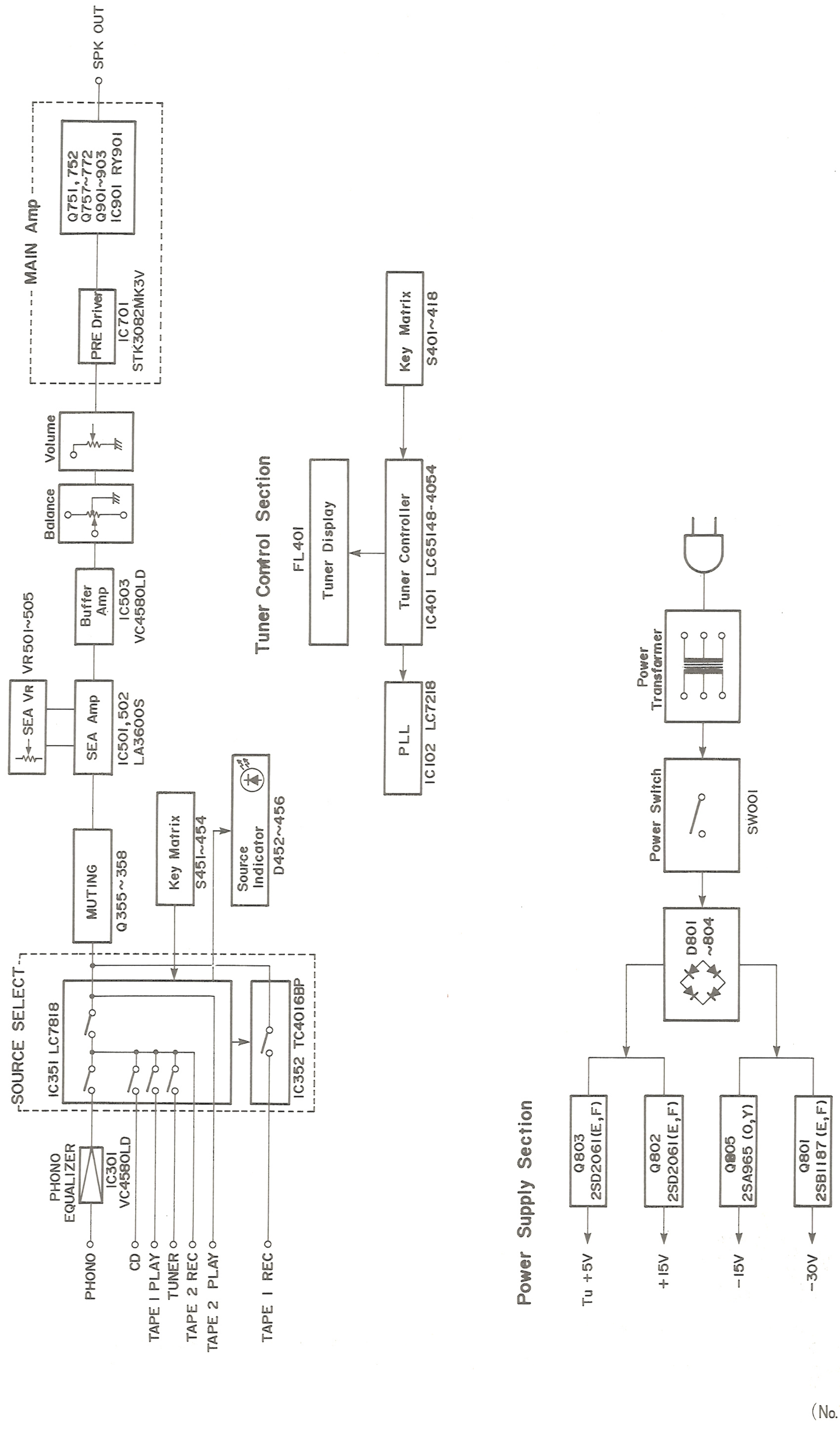

ANT 1
ANT 2
GND 4
NC 3
Vt 5
7 IF OUT
6 +B
8 OSC OUT

Block Diagram

■ Tuner Section


Q127 MUTE OFF SW
R OUT
L OUT
COMPULINK 2
D115
D106
D105
IC104 FM DET & AM
AM IF OUT
FM IF OUT
TUNED
Vcc
DET
FM
FM IN
FM OUT
AM OUT
AM IF IN
AM MIX OUT
AM IN
AM OSC
AM OSC OUT
+B
T107
AM +B
T106
T105
STEREO
MUTE
L.P.F
Vcc
AM IN
FM IN
L OUT
R OUT
FM/AM
AM+B
LP101
IC105 MPX
+12V
Q121, 123, 124 +B SW
LW+B MW+B FM+B
CF102 C. FILTER
Q108 BUFFER
Q107 IF AMP
CF101 C. FILTER
Q103 BUFFER
Q114, 115 AM OSC SW
LW +B
MW +B
T104 LW OSC
T103 MW OSC
Q125, 126 LP.FILTER
+5V
AM IF IN
FM IF IN
AM OSC IN
FM OSC IN
VDD
PD1
LW
MW
MONO FM
POWER
TUNED
IC102 PLL
FE101 FRONT END PACK
OSC OUT
IF OUT
+B
VT
GND
NC
ANT
ANT
FM +B
Q113 LW RF AMP
Q112 MW RF AMP
T102 LW ANT
T101 MW ANT
Q111 RF SW
LW +B
TO IC440
FM 75Ω
FM 300Ω
GND
AM LOOP
AM

Audio Section


SPK OUT
MAIN Amp
Q751,752
Q757~772
Q901~903
IC901 RY901
PRE Driver
IC701
STK3082MK3V
Volume
Balance
Buffer Amp
IC503
VC4580LD
SEA VR
VR501~505
SEA Amp
IC501,502
LA3600S
MUTING
Q355~358
Key Matrix
S451~454
Source Indicator
D452~456
SOURCE SELECT
IC351 LC7818
IC352 TC4016BP
PHONO EQUALIZER
IC301
VC4580LD
PHONO
CD
TAPE 1 PLAY
TUNER
TAPE 2 REC
TAPE 2 PLAY
TAPE 1 REC
FL401
Tuner Display
Tuner Controller
IC401 LC65148-4054
PLL
IC102 LC7218
Key Matrix
S401~418
Power Transformer
Power Switch
SW001
D801
~804
Q803
2SD2061(E,F)
Q802
2SD2061(E,F)
Q805
2SA965 (O,Y)
Q801
2SB1187(E,F)
Tu +5V
+15V
−15V
−30V

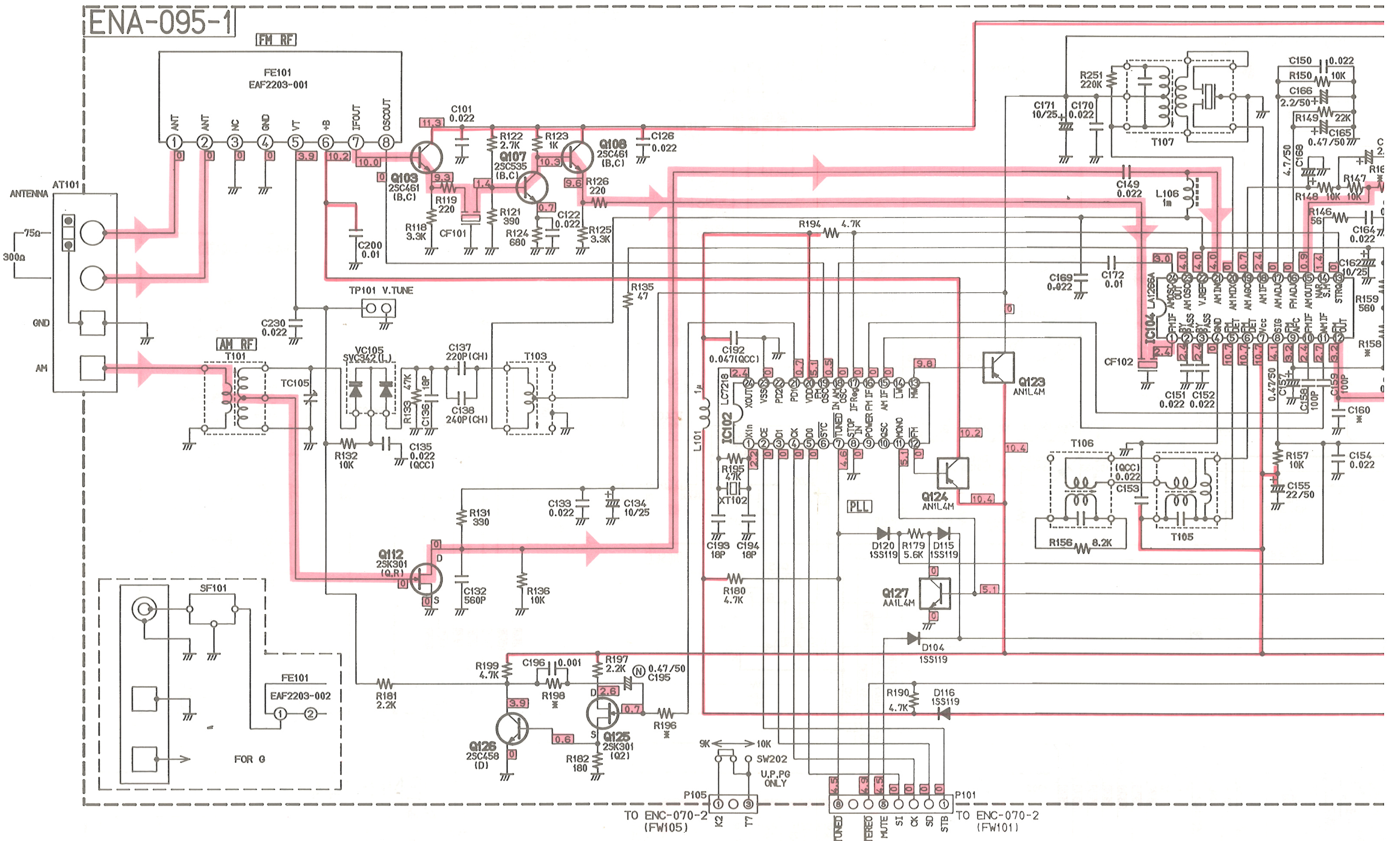
Tuner Control Section

Power Supply Section

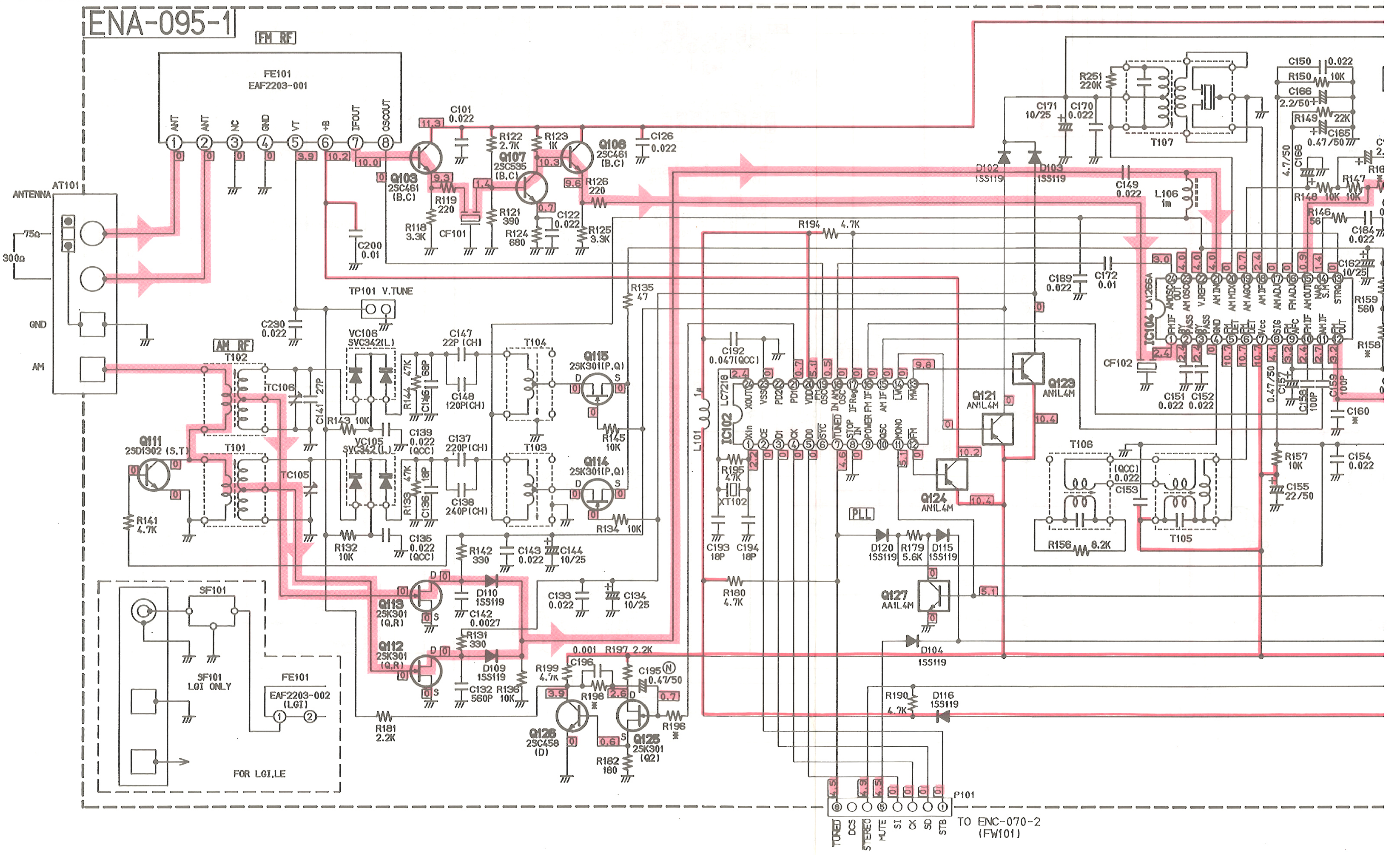
Schematic Diagrams

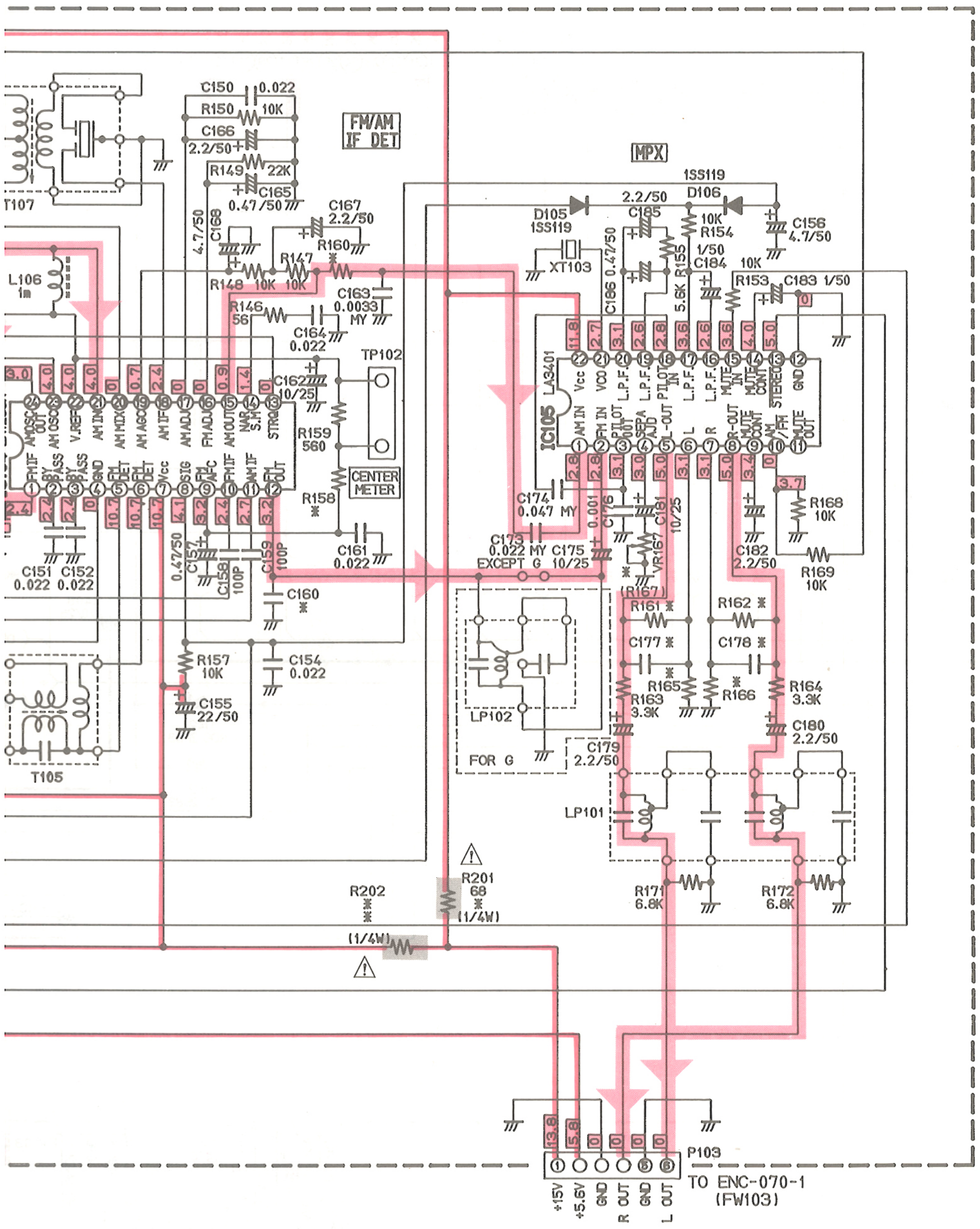
■Tuner Section

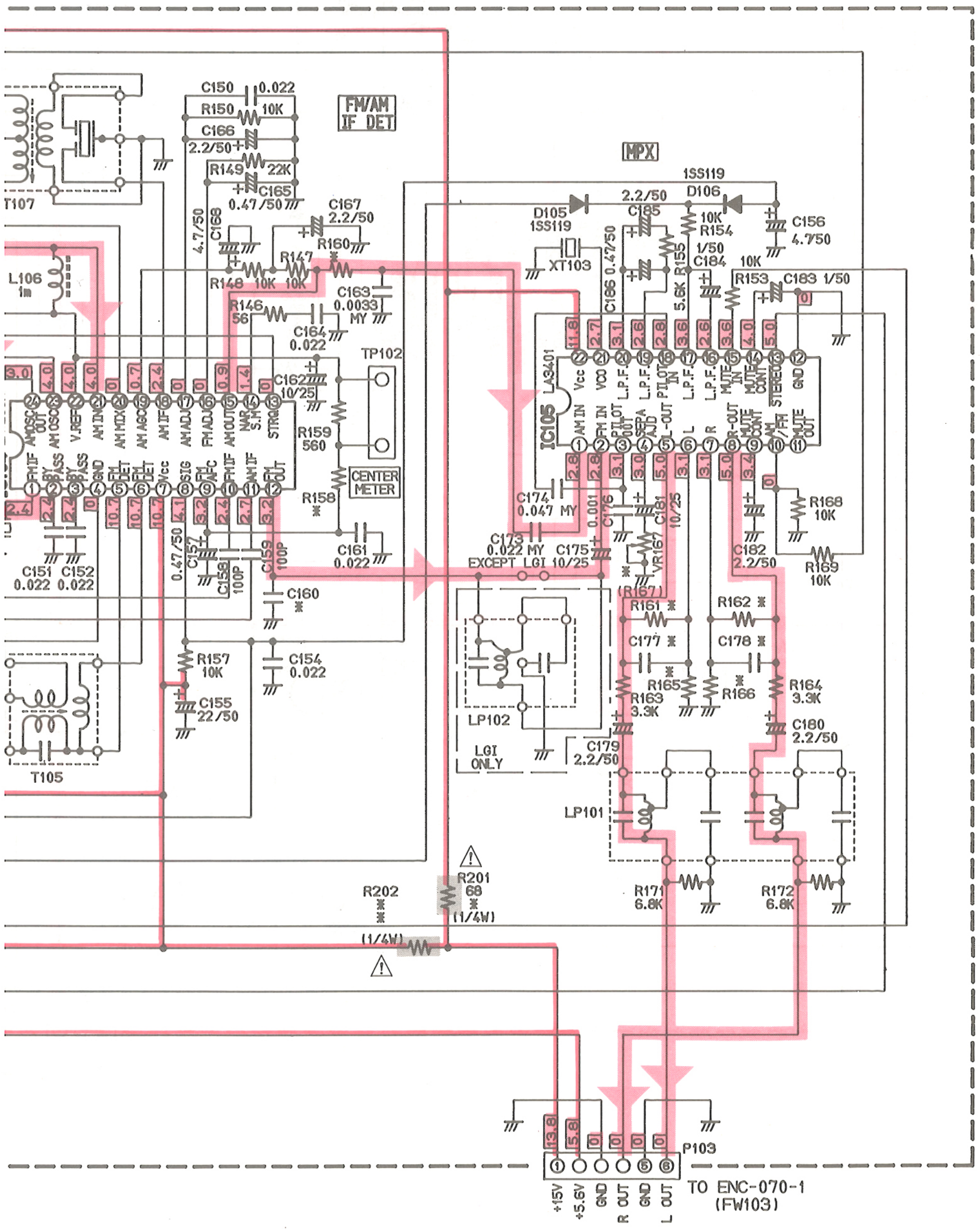
RX-302BK


ENA-095-1
FM RF
FE101
EAF2203-001
ANT
ANT
NC
GND
VT
+B
IFOUT
OSCOUT
ANTENNA
AT101
75Ω
300Ω
GND
AM
C101
0.022
R122
2.7K
R123
1K
Q107
2SC535
(B,C)
Q108
2SC461
(B,C)
C126
0.022
Q103
2SC461
(B,C)
R119
220
R118
3.3K
CF101
R121
390
R124
680
C122
0.022
R126
220
R125
3.3K
C200
0.01
TP101 V.TUNE
C230
0.022
R135
47
AM RF
T101
TC105
VC105
SVC342(L)
C137
220P(CH)
T103
R133 47K
C136 18P
C138
240P(CH)
R132
10K
C135
0.022
(QCC)
R131
330
C133
0.022
C134
10/25
Q112
2SK301
(Q,R)
C132
560P
R136
10K
SF101
FE101
EAF2203-002
FOR G
R181
2.2K
R199
4.7K
C196
0.001
R197
2.2K
C195
0.47/50
R198
Q126
2SC458
(D)
Q125
2SK301
(Q2)
R182
180
R196
9K
10K
SW202
U.P.PG
ONLY
P105
TO ENC-070-2
(FW105)
K2
T7
P101
TO ENC-070-2
(FW101)
TUNED
STEREO
MUTE
SI
CK
SO
STB
R194
4.7K
C192
0.047(QCC)
L101
IC102
LC7218
XOUT
VSS
PD2
PD1
VDD
AM OSC
FM OSC
TUNED
STOP
IF Req
POWER
FM IF
AM IF
MUTE
LW
MONO
MW
SW
FPI
XIn
CE
DI
CK
DO
SYC
R195
47K
XT102
C193
18P
C194
18P
R180
4.7K
PLL
D120
1SS119
R179
5.6K
D115
1SS119
Q127
AA1L4M
D104
1SS119
R190
4.7K
D116
1SS119
Q123
AN1L4M
Q124
AN1L4M
R251
220K
C171
10/25
C170
0.022
T107
C149
0.022
L106
1m
C169
0.022
C172
0.01
IC104 LA1266A
CF102
C151
0.022
C152
0.022
T106
T105
R156
8.2K
C153
(QCC)
0.022
R157
10K
C154
0.022
C155
22/50
C150
0.022
R150
10K
C166
2.2/50
R149
22K
C165
0.47/50
C168
4.7/50
R147
R148
10K
R146
56
C164
0.022
C162
10/25
R159
560
R158
C160
C158
100P
C159
100P
11.3
10.0
9.3
1.4
10.3
9.6
0.7
10.2
3.9
8.0
4.0
5.0
2.4
10.4
4.6
5.1
9.8
10.2
10.4
5.1
3.9
2.6
0.7
0.6
4.5

RX-302LBK


ENA-095-1
FM RF
FE101
EAF2203-001
ANT
ANT
NC
GND
VT
+B
IFOUT
OSCOUT
ANTENNA
AT101
75Ω
300Ω
GND
AM
C101
0.022
R122
2.7K
R123
1K
Q107
2SC535
(B,C)
Q108
2SC461
(B,C)
C126
0.022
Q103
2SC461
(B,C)
R119
220
R118
3.3K
CF101
R121
390
R124
680
C122
0.022
R126
220
R125
3.3K
C200
0.01
TP101 V.TUNE
C230
0.022
R135
47
AM RF
T102
TC106
C141 27P
VC106
SVC342(L)
C147
22P (CH)
T104
R144 47K
C146 68P
C148
120P(CH)
Q115
2SK301(P,Q)
R145
10K
R143 10K
C139
0.022
(QCC)
Q111
2SD1302 (S,T)
R141
4.7K
T101
TC105
VC105
SVC342(L)
C137
220P(CH)
T103
R133 47K
C136 18P
C138
240P(CH)
Q114
2SK301(P,Q)
R134 10K
R132
10K
C135
0.022
(QCC)
R142
330
C143
0.022
C144
10/25
Q113
2SK301
(Q,R)
D110
1SS119
C142
0.0027
R131
330
C133
0.022
C134
10/25
Q112
2SK301
(Q,R)
D109
1SS119
C132
560P
R136
10K
SF101
SF101
LGI ONLY
FE101
EAF2203-002
(LGI)
FOR LGI,LE
R181
2.2K
R199
4.7K
C196
0.001
R197
2.2K
C195
0.47/50
R198
Q126
2SC458
(D)
Q125
2SK301
(Q2)
R182
180
R196
P101
TO ENC-070-2
(FW101)
TUNED
DCS
STEREO
MUTE
SI
CK
SO
STB
D102
1SS119
D103
1SS119
R194
4.7K
C192
0.047(QCC)
L101
IC102
LC7218
R195
47K
XT102
C193
18P
C194
18P
R180
4.7K
PLL
D120
1SS119
R179
5.6K
D115
1SS119
Q127
AA1L4M
D104
1SS119
R190
4.7K
D116
1SS119
Q121
AN1L4M
Q123
AN1L4M
Q124
AN1L4M
R251
220K
C171
10/25
C170
0.022
T107
C149
0.022
L106
1m
C169
0.022
C172
0.01
IC104 LA1266A
CF102
C151
0.022
C152
0.022
T106
T105
R156
8.2K
C153
(QCC)
0.022
R157
10K
C154
0.022
C155
22/50
C150
0.022
R150
10K
C166
2.2/50
R149
22K
C165
0.47/50
C168
4.7/50
R147
R148
10K
R146
56
C164
0.022
C162
10/25
R159
560
R158
C160
C158
100P
C159
100P


FM/AM IF DET
MPX
IC105 LA3401
C150 0.022
R150 10K
C166 2.2/50
R149 22K
C165 0.47/50
C167 2.2/50
R160
R147
R148 10K
R146 56
C163 0.0033 MY
C164 0.022
TP102
C162 10/25
R159 560
CENTER METER
R158
T107
L106
D105 1SS119
XT103
D106 1SS119
C185 2.2/50
R154 10K
C184 1/50
R155 5.6K
R153 10K
C183 1/50
C156 4.7/50
C174 0.047 MY
C173 0.022 MY
C175 10/25
EXCEPT G
C181 10/25
VR167
R167
C182 2.2/50
R168 10K
R169 10K
R161
R162
C177
C178
R165
R166
R163 3.3K
R164 3.3K
C180 2.2/50
C179 2.2/50
LP102
FOR G
LP101
R171 6.8K
R172 6.8K
C151 0.022
C152 0.022
C160
C161 0.022
C154 0.022
R157 10K
C155 22/50
T105
R201 68 (1/4W)
R202 (1/4W)
P103
TO ENC-070-1 (FW103)
+15V
+5.6V
GND
R OUT
GND
L OUT


FM/AM IF DET
MPX
IC105 LA3401
TP102
CENTER METER
EXCEPT LGI
LP102
LGI ONLY
LP101
R201 68 (1/4W)
R202 (1/4W)
P103
TO ENC-070-1 (FW103)
+15V
+5.6V
GND
R OUT
GND
L OUT

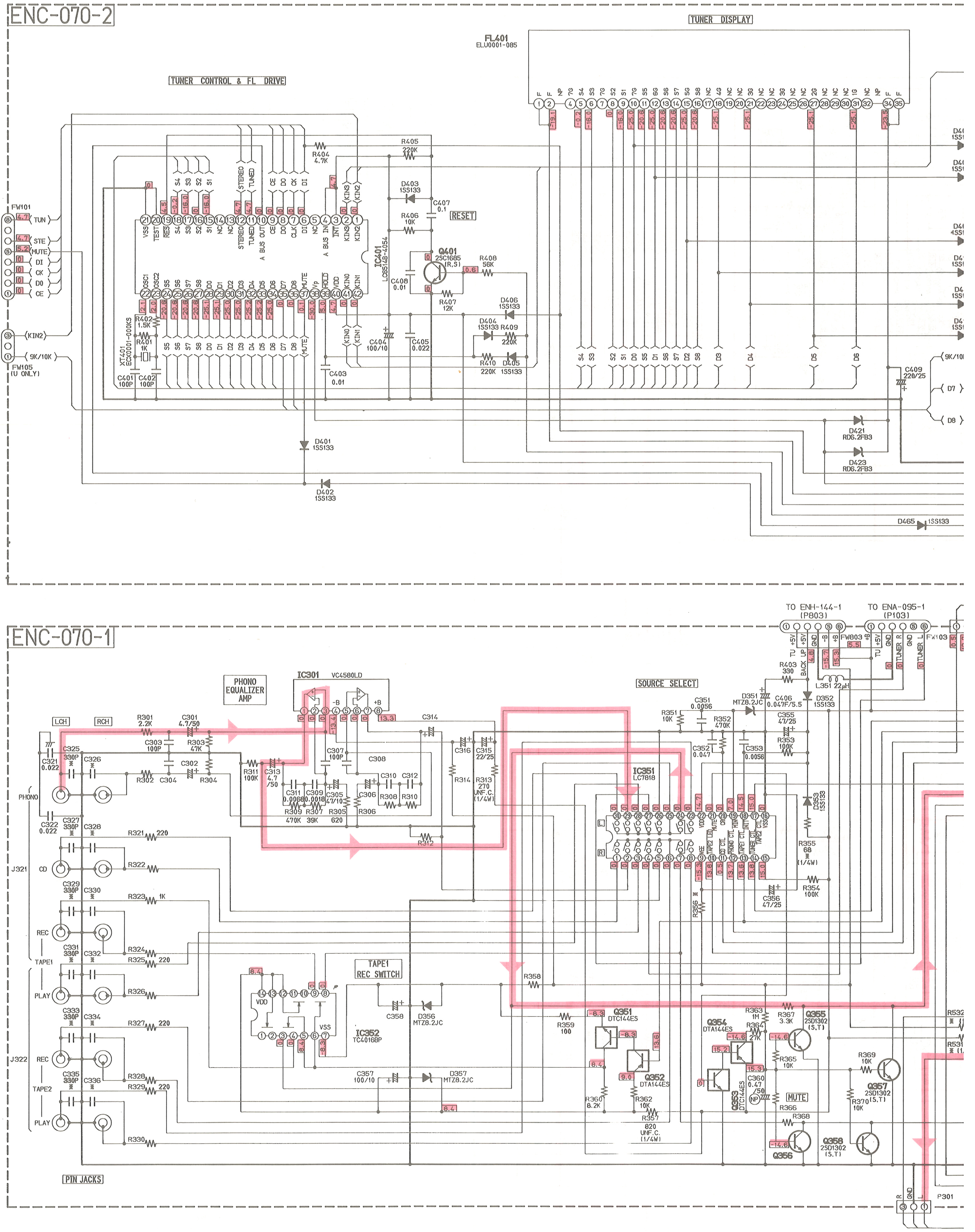
※ MARK

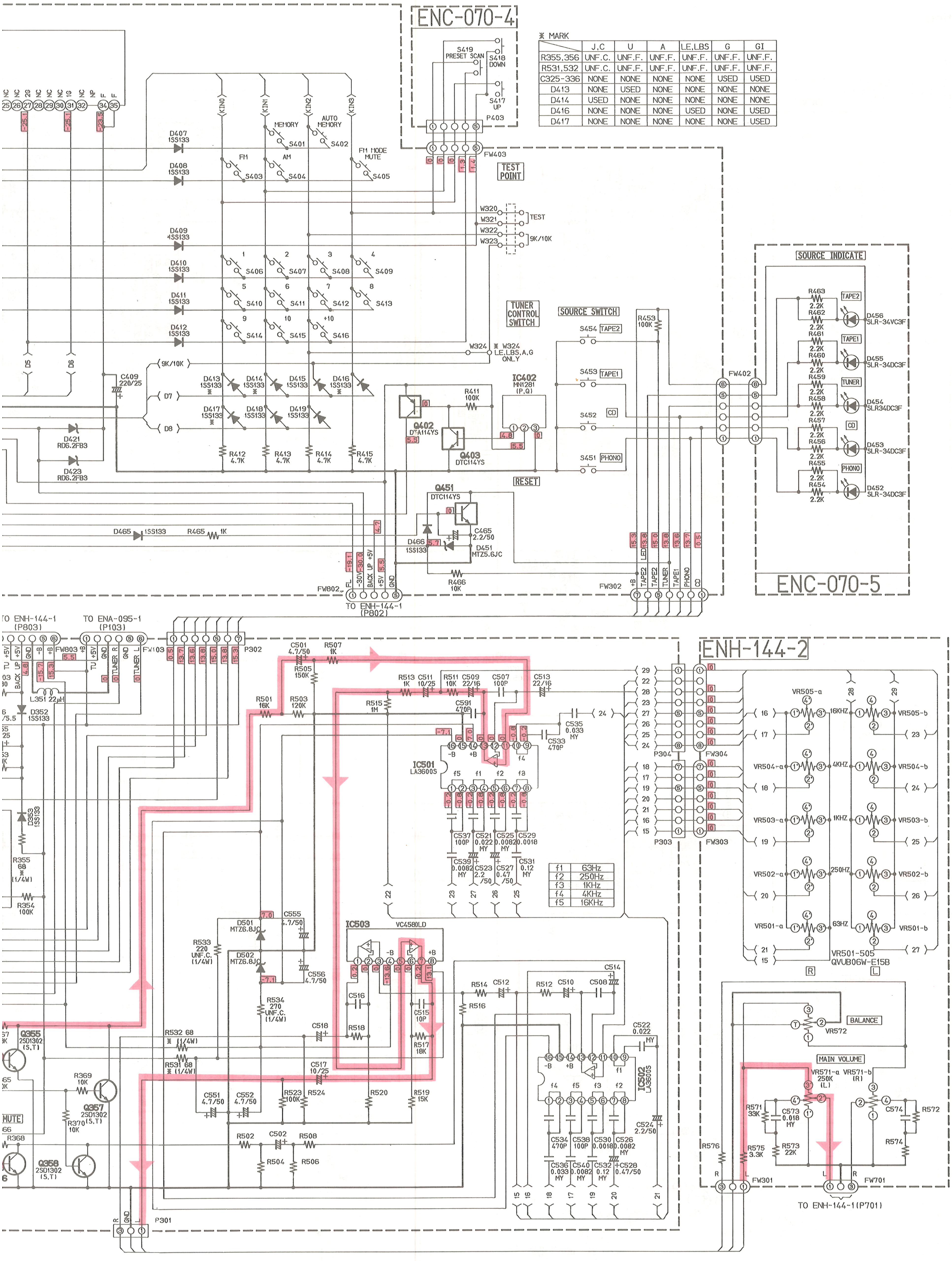
	J,C	U,P,PG,UE	A	E,LE,LBS,LEV	G,LGI
R158	18K	27K	27K	27K	27K
R160	12K	12K	22K	22K	22K
R161,162	120K	120K	180K	180K	180K
R165,166	180K	180K	270K	270K	270K
R167,VR167	39K	39K	100K VR	100K VR	100K VR
R196	10K	10K	10K	2.2K	2.2K
R198	3.3K	3.3K	3.3K	8.2K	8.2K
R201	UNF.C.	UNF.C.	UNF.F.	UNF.F.	UNF.F.
R202	UNF.C.	UNF.C.	UNF.F.	UNF.F.	UNF.F.
	47	47	47	47	22
C160	220P	220P	220P	100P	220P
C177,178	560P	560P	270P	270P	270P

Notes:

1. ━━ indicates + B power supply.
2. ╍╍ indicates − B power supply.
3. ▨ indicates signal path.
4. ▭ shows voltage.
5. When replacing the parts in the darkened area (▨) and those marked with ⚠, be sure to use the designated parts to ensure safety.
   This is the standard circuit diagram.
6. The design and contents are sudject to change wthout notice.

■Eqaulizer & Source Selector Section


ENC-070-2
TUNER CONTROL & FL DRIVE
TUNER DISPLAY
FL401
ELU0001-085
IC401
LC65148-4054
Q401
2SC1685
(R,S)
RESET
D401
1SS133
D402
1SS133
D403
1SS133
D404
1SS133
D405
1SS133
D406
1SS133
D421
RD6.2FB3
D423
RD6.2FB3
D465
1SS133
XT401
ECX0001-00OKS
FW101
FW105
(U ONLY)
TO ENA-095-1 (P101)
TO ENA-095-1 (P105)
TUN
STE
MUTE
DI
CK
DO
CE
KIN2
9K/10K
R404
4.7K
R405
220K
R406
10K
R407
12K
R408
56K
R409
220K
R410
220K
R401
1K
R402
1.5K
C401
100P
C402
100P
C403
0.01
C404
100/10
C405
0.022
C407
0.1
C408
0.01
C409
220/25
D7
D8
ENC-070-1
PHONO EQUALIZER AMP
IC301
VC4580LD
LCH
RCH
R301
2.2K
C301
4.7/50
C303
100P
R303
47K
C302
R302
C304
R304
R311
100K
C313
4.7
/50
C311
0.0068
C309
0.0018
C305
47/10
C307
100P
C308
C306
C310
C312
R308
R310
R309
470K
R307
39K
R305
620
R306
R312
C314
C316
C315
22/25
R314
R313
270
UNF.C.
(1/4W)
PHONO
C321
0.022
C322
0.022
C325
330P
C326
C327
330P
C328
J321
CD
R321
220
R322
C329
330P
C330
R323
1K
REC
C331
330P
C332
R324
R325
220
TAPE1
PLAY
R326
C333
330P
C334
R327
220
J322
REC
C335
330P
C336
R328
R329
220
TAPE2
PLAY
R330
PIN JACKS
TAPE1 REC SWITCH
IC352
TC4016BP
C358
D356
MTZ8.2JC
C357
100/10
D357
MTZ8.2JC
SOURCE SELECT
IC351
LC7818
R351
10K
C351
0.0056
R352
470K
D351
MTZ8.2JC
C406
0.047F/5.5
D352
1SS133
C355
47/25
R359
100K
C352
0.047
C353
0.0056
D353
1SS133
R355
68
(1/4W)
R354
100K
C356
47/25
R356
R358
R359
100
Q351
DTC144ES
Q352
DTA144ES
Q353
DTC144ES
Q354
DTA144ES
Q355
2SD1302
(S,T)
Q356
Q357
2SD1302
(S,T)
Q358
2SD1302
(S,T)
R360
8.2K
R362
10K
R357
820
UNF.C.
(1/4W)
R363
1M
R364
27K
R365
10K
R366
R367
3.3K
R368
R369
10K
R370
10K
C360
0.47
/50
(NP)
MUTE
TO ENH-144-1 (P803)
TO ENA-095-1 (P103)
FW803
FW103
R403
330
L351 22μH
TU +5V
BACK UP +5V
GND
-B
+B
TUNER R
TUNER L
P301
R531
R532

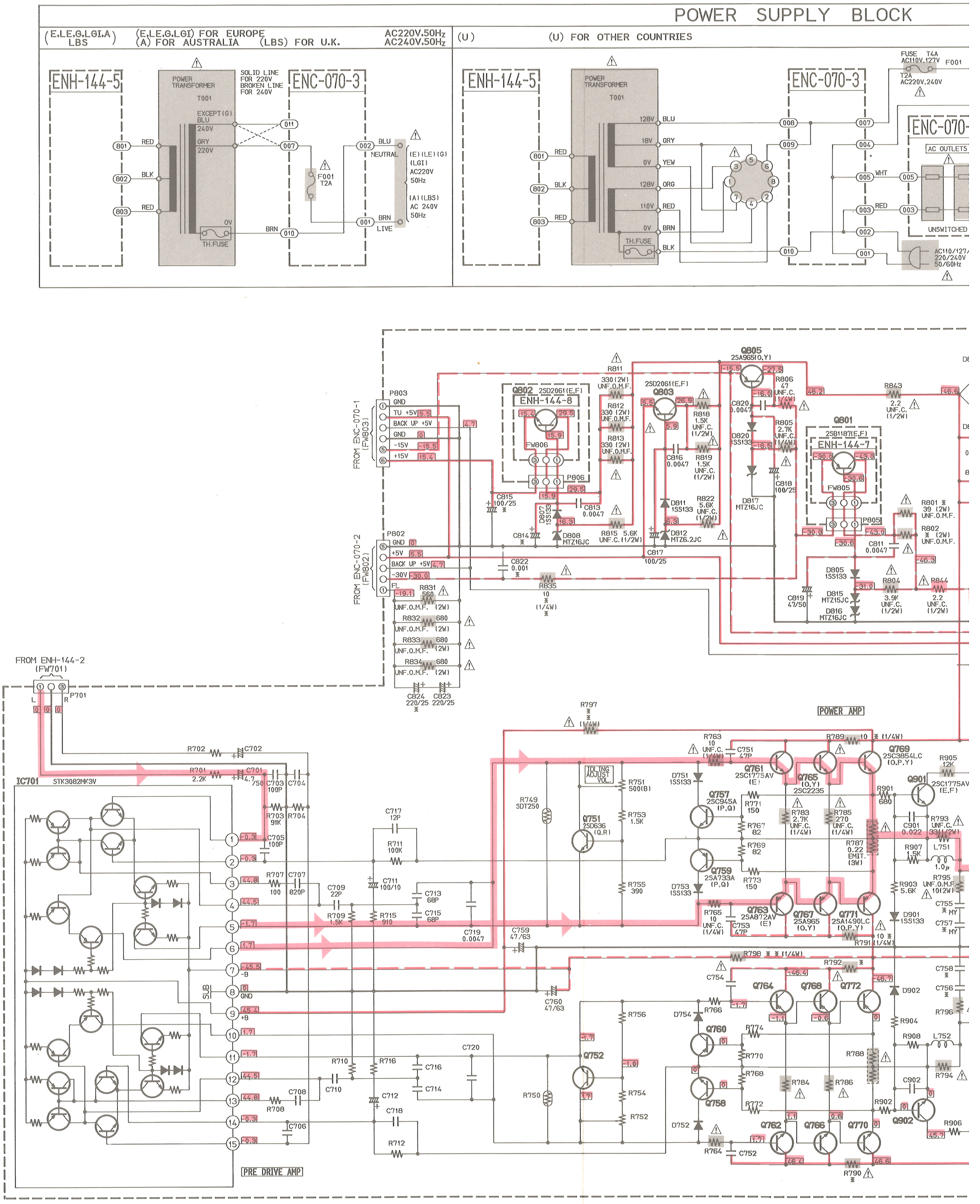

ENC-070-4
ENC-070-5
ENH-144-2
S419 PRESET SCAN
S418 DOWN
S417 UP
P403
FW403
TEST POINT
MEMORY
AUTO MEMORY
S401
S402
FM
AM
S403
S404
FM MODE MUTE
S405
D407 1SS133
D408 1SS133
D409 1SS133
D410 1SS133
D411 1SS133
D412 1SS133
W320
W321
W322
W323
TEST
9K/10K
S406
S407
S408
S409
S410
S411
S412
S413
S414
S415
S416
+10
TUNER CONTROL SWITCH
SOURCE SWITCH
S454 TAPE2
S453 TAPE1
S452 CD
S451 PHONO
R453 100K
W324
※ W324 LE,LBS,A,G ONLY
C409 220/25
D413 1SS133
D414 1SS133
D415 1SS133
D416 1SS133
D417 1SS133
D418 1SS133
D419 1SS133
D421 RD6.2FB3
D423 RD6.2FB3
R412 4.7K
R413 4.7K
R414 4.7K
R415 4.7K
Q402 DTA114YS
Q403 DTC114YS
R411 100K
IC402 MN1281 (P,Q)
RESET
Q451 DTC114YS
C465 2.2/50
D466 1SS133
D451 MTZ5.6JC
R466 10K
D465 1SS133
R465 1K
FW802
TO ENH-144-1 (P802)
FW302
SOURCE INDICATE
R463 2.2K
R462 2.2K
R461 2.2K
R460 2.2K
R459 2.2K
R458 2.2K
R457 2.2K
R456 2.2K
R455 2.2K
R454 2.2K
D456 SLR-34VC3F
D455 SLR-34DC3F
D454 SLR34DC3F
D453 SLR-34DC3F
D452 SLR-34DC3F
TAPE2
TAPE1
TUNER
CD
PHONO
FW402
TO ENH-144-1 (P803)
TO ENA-095-1 (P103)
FW803
FW103
P302
L351 22μH
D352 1SS133
D353 1SS133
R355 68 ※ (1/4W)
R354 100K
C501 4.7/50
R507 1K
R505 150K
R501 16K
R503 120K
R513 1K
C511 10/25
R511 10K
C509 22/16
C507 100P
C513 22/16
R515 1M
C591 470P
C535 0.033 MY
C533 470P
IC501 LA3600S
C537 100P
C521 0.022 MY
C525 0.0082 MY
C529 0.0018
C539 0.0082 MY
C523 2.2/50
C527 0.47/50
C531 0.12 MY
D501 MTZ6.8JC
D502 MTZ6.8JC
C555 4.7/50
C556 4.7/50
R533 220 UNF.C. (1/4W)
R534 270 UNF.C. (1/4W)
IC503 VC4580LD
C516
R518
C515 10P
R517 18K
C518
C517 10/25
R532 68 ※ (1/4W)
R531 68 ※ (1/4W)
Q355 2SD1302 (S,T)
Q357 2SD1302 (S,T)
Q358 2SD1302 (S,T)
R369 10K
R370 10K
MUTE
R368
C551 4.7/50
C552 4.7/50
R523 100K
R524
R520
R519 15K
R502
C502
R508
R504
R506
R514
C512
R512
C510
C508
C514
R516
C522 0.022 MY
IC502 LA3600S
C524 2.2/50
C534 470P
C538 100P
C530 0.0018
C526 0.0082 MY
C536 0.033 MY
C540 0.0082 MY
C532 0.12 MY
C528 0.47/50
P304
FW304
P303
FW303
VR505-a
VR505-b
VR504-a
VR504-b
VR503-a
VR503-b
VR502-a
VR502-b
VR501-a
VR501-b
16KHZ
4KHZ
1KHZ
250HZ
63HZ
VR501-505 QVUB06W-E15B
BALANCE
VR572
MAIN VOLUME
VR571-a 250K (L)
VR571-b (R)
R571 33K
C573 0.018 MY
R575 3.3K
R573 22K
R576
C574
R572
R574
FW301
FW701
TO ENH-144-1 (P701)
P301

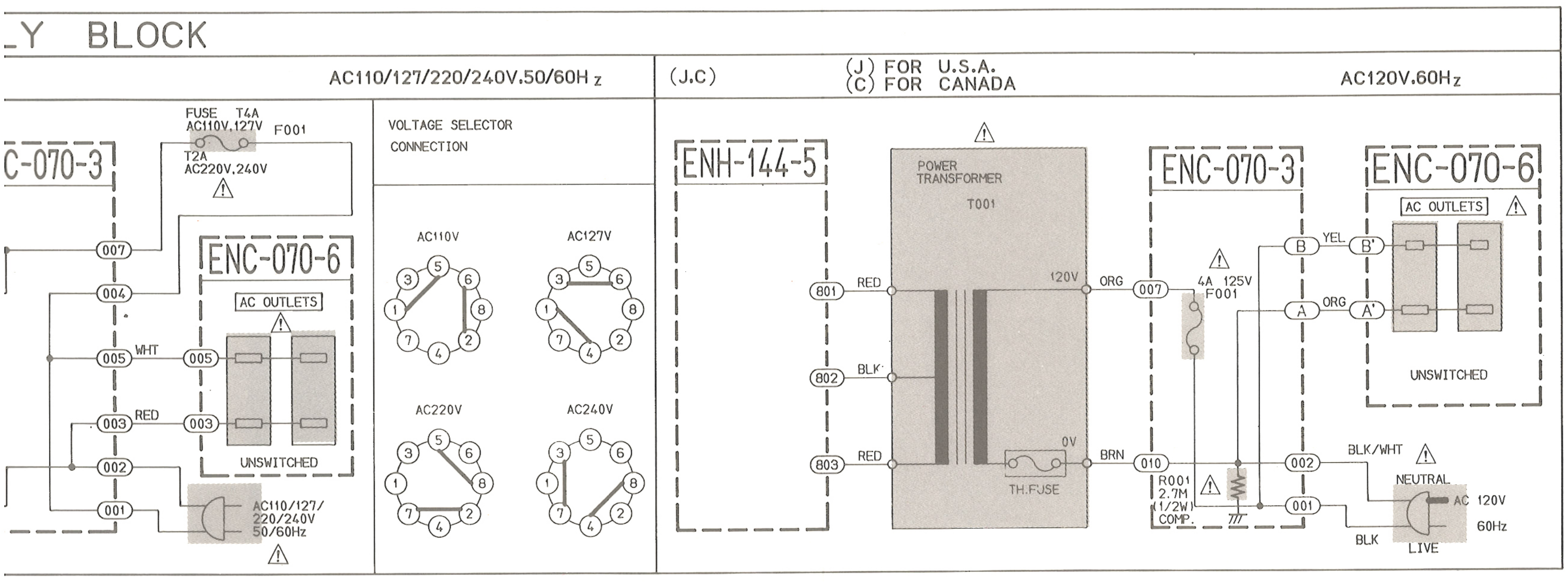
※ MARK

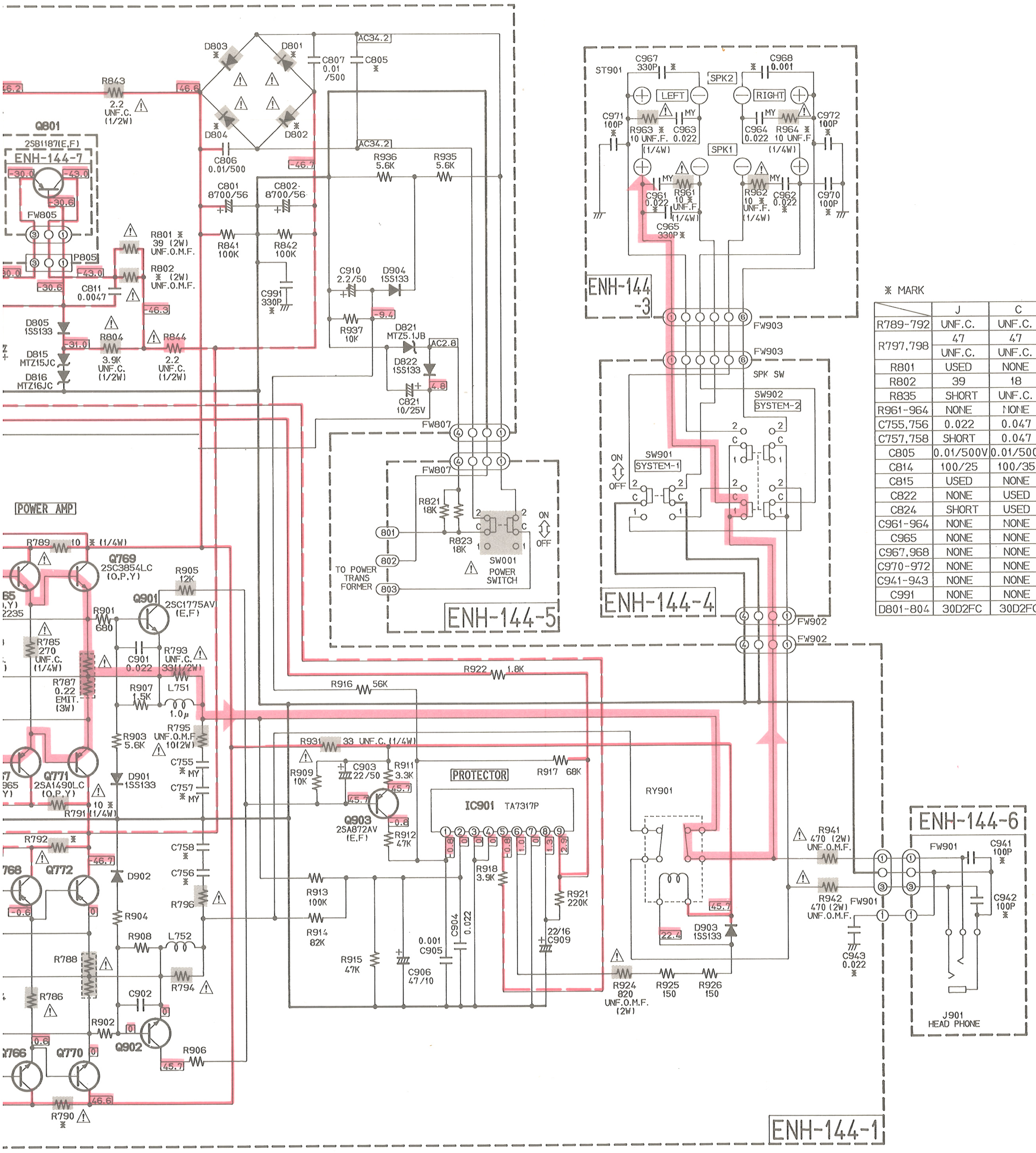
	J,C	U	A	LE,LBS	G	GI
R355,356	UNF.C.	UNF.F.	UNF.F.	UNF.F.	UNF.F.	UNF.F.
R531,532	UNF.C.	UNF.F.	UNF.F.	UNF.F.	UNF.F.	UNF.F.
C325-336	NONE	NONE	NONE	NONE	USED	USED
D413	NONE	USED	NONE	NONE	NONE	NONE
D414	USED	NONE	NONE	NONE	NONE	NONE
D416	NONE	NONE	NONE	USED	NONE	USED
D417	NONE	NONE	NONE	NONE	NONE	USED

f1	63Hz
f2	250Hz
f3	1KHz
f4	4KHz
f5	16KHz

■Power Supply & Main Amplifier Section


POWER SUPPLY BLOCK
(E.LE.G.LGI.A) LBS
(E.LE.G.LGI) FOR EUROPE
(A) FOR AUSTRALIA
(LBS) FOR U.K.
AC220V.50Hz
AC240V.50Hz
(U)
(U) FOR OTHER COUNTRIES
ENH-144-5
POWER TRANSFORMER
T001
EXCEPT(G)
BLU
240V
GRY
220V
0V
TH.FUSE
SOLID LINE FOR 220V
BROKEN LINE FOR 240V
ENC-070-3
F001
T2A
BLU
NEUTRAL
BRN
LIVE
(E)(LE)(G)
(LGI)
AC220V
50Hz
(A)(LBS)
AC 240V
50Hz
801
802
803
RED
BLK
011
007
002
001
010
128V
18V
0V
110V
BLU
GRY
YEW
ORG
RED
BRN
BLK
008
009
004
005
003
FUSE T4A
AC110V,127V
T2A
AC220V,240V
F001
ENC-070
AC OUTLETS
WHT
UNSWITCHED
AC110/127/220/240V
50/60Hz
FROM ENC-070-1 (FW803)
P803
GND
TU +5V
BACK UP +5V
GND
-15V
+15V
Q802 2SD2061(E,F)
ENH-144-8
FW806
P806
Q803 2SD2061(E,F)
Q805 2SA965(O,Y)
R811 330 (2W) UNF.O.M.F.
R812 330 (2W) UNF.O.M.F.
R813 330 (2W) UNF.O.M.F.
R818 1.5K UNF.C. (1/2W)
R819 1.5K UNF.C. (1/2W)
R806 47 UNF.C. (1/4W)
R805 2.7K UNF.C. (1/4W)
C820 0.0047
D820 1SS133
D817 MTZ16JC
C818 100/25
C816 0.0047
D811 1SS133
R822 5.6K UNF.C. (1/2W)
R815 5.6K UNF.C.(1/2W)
D812 MTZ6.2JC
C817 100/25
C815 100/25
D807 1SS133
C813 0.0047
C814
D808 MTZ16JC
Q801 2SB1187(E,F)
ENH-144-7
FW805
P805
R843 2.2 UNF.C. (1/2W)
R801 39 (2W) UNF.O.M.F.
R802 (2W) UNF.O.M.F.
C811 0.0047
D805 1SS133
D815 MTZ15JC
D816 MTZ16JC
C819 47/50
R804 3.9K UNF.C. (1/2W)
R844 2.2 UNF.C. (1/2W)
FROM ENC-070-2 (FW802)
P802
GND
+5V
BACK UP +5V
-30V
FL
C822 0.001
R835 10 (1/4W)
R831 560 UNF.O.M.F. (2W)
R832 680 UNF.O.M.F. (2W)
R833 680 UNF.O.M.F. (2W)
R834 680 UNF.O.M.F. (2W)
C824 220/25
C823 220/25
FROM ENH-144-2 (FW701)
P701
L
R
IC701 STK3082MK3V
R702
C702
R701 2.2K
C701 4.7/50
C703 100P
C704
R703 91K
R704
C705 100P
R707 100
C707 820P
C709 22P
R709 1.5K
C711 100/10
C717 12P
R711 100K
C713 68P
R715 910
C715 68P
C719 0.0047
C759 47/63
C760 47/63
-B
GND
+B
SUB
R710
R716
C716
C714
C710
C712
C718
R712
C708
R708
C706
C720
PRE DRIVE AMP
POWER AMP
R797 (1/4W)
IDLING ADJUST VOL.
R751 500(B)
R749 SDT250
Q751 2SD636 (Q,R)
R753 1.5K
R755 390
R750
Q752
R756
R754
R752
R763 10 UNF.C. (1/4W)
C751 47P
D751 1SS133
Q761 2SC1775AV (E)
Q757 2SC945A (P,Q)
R771 150
R767 82
R769 82
Q759 2SA733A (P,Q)
R773 150
D753 1SS133
R765 10 UNF.C. (1/4W)
C753 47P
Q763 2SA872AV (E)
Q765 (O,Y) 2SC2235
Q767 2SA965 (O,Y)
R783 2.7K UNF.C. (1/4W)
R785 270 UNF.C. (1/4W)
R789 10 (1/4W)
Q769 2SC3854LC (O,P,Y)
Q771 2SA1490LC (O,P,Y)
R787 0.22 EMIT. (3W)
R791 10 (1/4W)
R901 680
Q901 2SC1775AV (E,F)
R905 12K
C901 0.022
R793 UNF.C. 33(1/2W)
R907 1.5K
L751 1.0μ
R795 UNF.O.M.F. 10(2W)
R903 5.6K
D901 1SS133
C755 MY
C757 MY
R798 (1/4W)
R792
C754
Q764
Q768
Q772
D902
C758
C756
R796
D754
R766
Q760
R774
R770
R768
Q758
R784
R786
R788
R772
D752
R764
C752
Q762
Q766
Q770
R790
R904
R908
L752
R794
C902
R902
Q902
R906
-15.5
-27.5
-16.0
-16.9
46.2
46.6
5.5
4.7
0
-15.5
15.4
29.5
15.9
26.9
5.9
6.3
16.3
-30.0
-43.0
-30.6
-31.0
-46.3
-19.1
-0.3
44.8
44.5
-1.7
1.7
-45.5
45.4
-1.1
-0.6
-46.4
46.7
1.1
0.6
45.7
46.4
46.6
-1.0
1.0
1.7
-1.7


LY BLOCK
AC110/127/220/240V.50/60Hz
(J.C)
(J) FOR U.S.A.
(C) FOR CANADA
AC120V.60Hz
FUSE T4A AC110V,127V
T2A AC220V,240V
F001
VOLTAGE SELECTOR CONNECTION
AC110V
AC127V
AC220V
AC240V
ENC-070-3
ENC-070-6
AC OUTLETS
UNSWITCHED
WHT
RED
AC110/127/220/240V 50/60Hz
ENH-144-5
POWER TRANSFORMER
T001
120V
0V
TH.FUSE
RED
BLK
ORG
BRN
YEL
4A 125V
F001
R001 2.7M (1/2W) COMP.
BLK/WHT
NEUTRAL
LIVE
BLK
AC 120V 60Hz

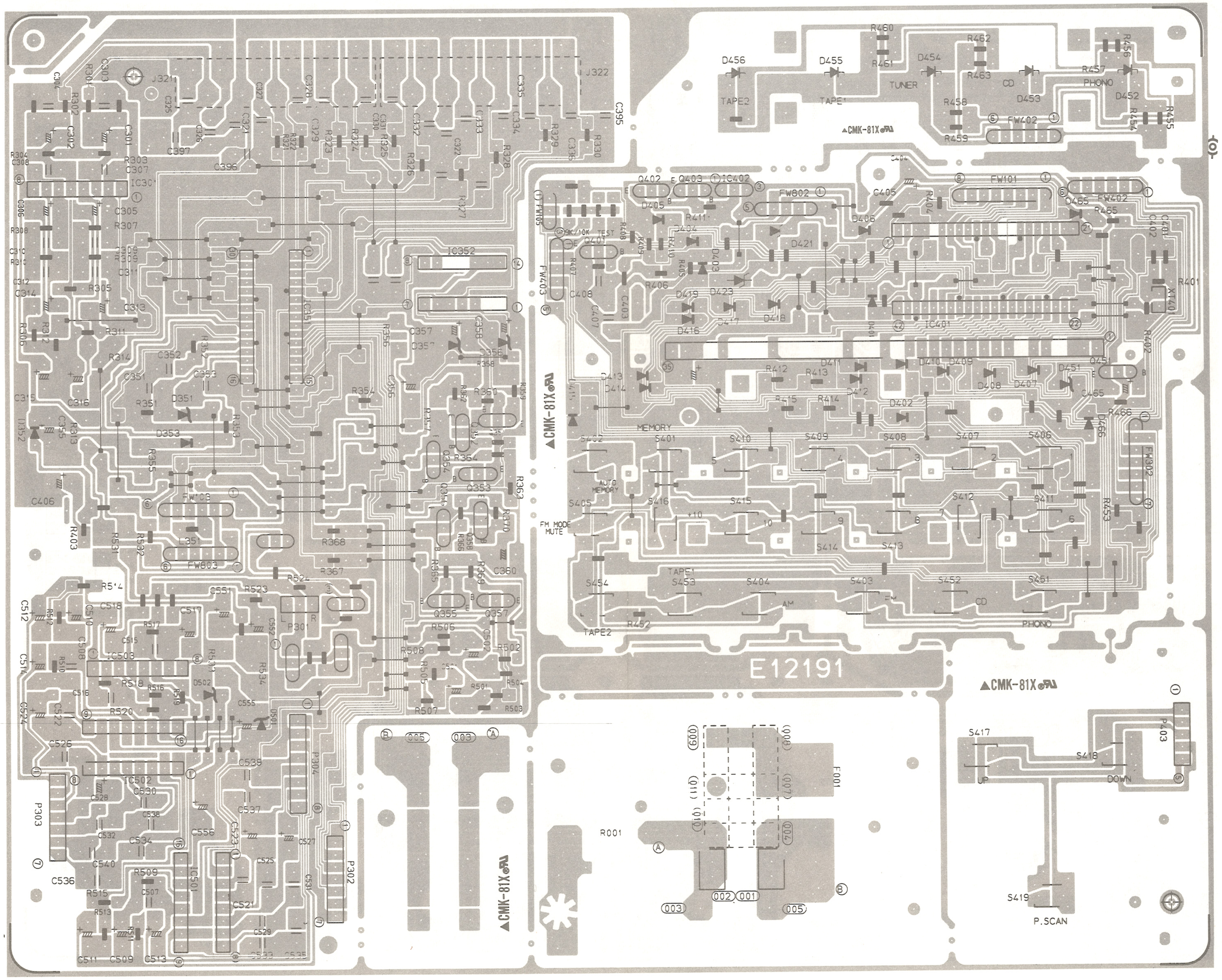

D803
D801
D804
D802
C807 0.01 /500
C805
AC34.2
R843 2.2 UNF.C. (1/2W)
Q801 2SB1187(E,F)
ENH-144-7
FW805
P805
C806 0.01/500
C801 8700/56
C802 8700/56
R841 100K
R842 100K
R801 39 (2W) UNF.O.M.F.
R802 (2W) UNF.O.M.F.
C811 0.0047
D805 1SS133
D815 MTZ15JC
D816 MTZ16JC
R804 3.9K UNF.C. (1/2W)
R844 2.2 UNF.C. (1/2W)
R936 5.6K
R935 5.6K
C910 2.2/50
D904 1SS133
C991 330P
R937 10K
D821 MTZ5.1JB
D822 1SS133
AC2.8
C821 10/25V
FW807
R821 18K
R823 18K
SW001 POWER SWITCH
ON
OFF
TO POWER TRANS FORMER
ENH-144-5
POWER AMP
R789 10 (1/4W)
Q769 2SC3854LC (O,P,Y)
R905 12K
Q901 2SC1775AV (E,F)
R901 680
R785 270 UNF.C. (1/4W)
R787 0.22 EMIT. (3W)
C901 0.022
R793 UNF.C. 33 (1/2W)
R907 1.5K
L751 1.0μ
R795 UNF.O.M.F. 10(2W)
R903 5.6K
D901 1SS133
C755 MY
C757 MY
Q771 2SA1490LC (O,P,Y)
R791 10 (1/4W)
R792
Q772
Q768
D902
C758
C756
R796
R904
R908
L752
R788
R794
R786
C902
R902
Q902
Q770
Q766
R906
R790
R916 56K
R922 1.8K
R931 33 UNF.C. (1/4W)
R909 10K
C903 22/50
R911 3.3K
Q903 2SA872AV (E,F)
R912 47K
PROTECTOR
IC901 TA7317P
R917 68K
R913 100K
R914 82K
R915 47K
C906 47/10
C905 0.001
C904 0.022
R918 3.9K
R921 220K
C909 22/16
R924 820 UNF.O.M.F. (2W)
R925 150
R926 150
RY901
D903 1SS133
ENH-144-1
ST901
C967 330P
C968 0.001
SPK2
LEFT
RIGHT
MY
C971 100P
R963 10 UNF.F. (1/4W)
C963 0.022
C964 0.022
R964 10 UNF.F. (1/4W)
C972 100P
SPK1
C961 0.022
R961 10 UNF.F. (1/4W)
R962 10 UNF.F. (1/4W)
C962 0.022
C970 100P
C965 330P
ENH-144-3
FW903
SPK SW
SW902 SYSTEM-2
SW901 SYSTEM-1
ON
OFF
ENH-144-4
FW902
R941 470 (2W) UNF.O.M.F.
R942 470 (2W) UNF.O.M.F.
FW901
C943 0.022
ENH-144-6
C941 100P
C942 100P
J901 HEAD PHONE

※ MARK

	J	C	U	GI,E,BS,A	G
R789-792	UNF.C.	UNF.C.	UNF.F.	UNF.F.	UNF.F.
R797,798	47	47	33	33	33
	UNF.C.	UNF.C.	UNF.F.	UNF.F.	UNF.F.
R801	USED	NONE	NONE	NONE	NONE
R802	39	18	18	18	18
R835	SHORT	UNF.C.	UNF.F.	UNF.F.	UNF.F.
R961-964	NONE	NONE	NONE	NONE	USED
C755,756	0.022	0.047	0.047	0.047	0.047
C757,758	SHORT	0.047	0.047	0.047	0.047
C805	0.01/500V	0.01/500V	0.1/250V	0.1/250V	0.1/250V
C814	100/25	100/35	100/35	100/35	100/35
C815	USED	NONE	NONE	NONE	NONE
C822	NONE	USED	USED	USED	USED
C824	SHORT	USED	USED	USED	USED
C961-964	NONE	NONE	NONE	NONE	USED
C965	NONE	NONE	NONE	NONE	USED
C967,968	NONE	NONE	NONE	NONE	USED
C970-972	NONE	NONE	NONE	NONE	USED
C941-943	NONE	NONE	NONE	NONE	USED
C991	NONE	NONE	NONE	NONE	USED
D801-804	30D2FC	30D2FC	30D2FC	30D2FC	30DF2SFC

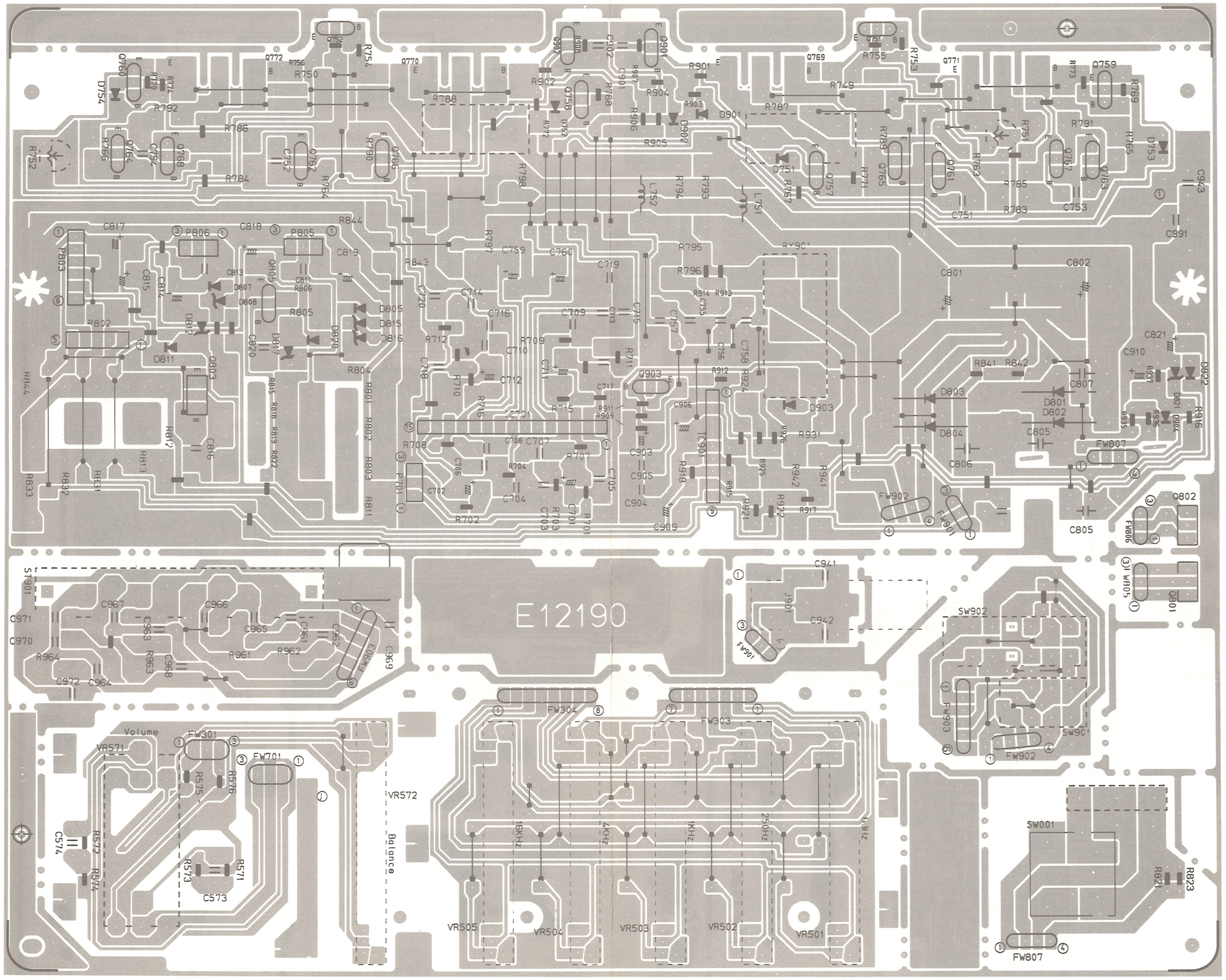
Printed Circuit Boards

■Equalizer & Sourse Selector P.C.B.(ENC-070)


E12191
▲CMK-81X
J321
J322
IC301
IC351
IC352
IC401
IC402
IC501
IC502
IC503
FW101
FW402
FW403
FW802
FW803
MEMORY
AUTO MEMORY
FM MODE MUTE
TUNER
CD
PHONO
TAPE1
TAPE2
AM
F001
R001
P301
P302
P303
P304
S417
S418
S419
UP
DOWN
P.SCAN

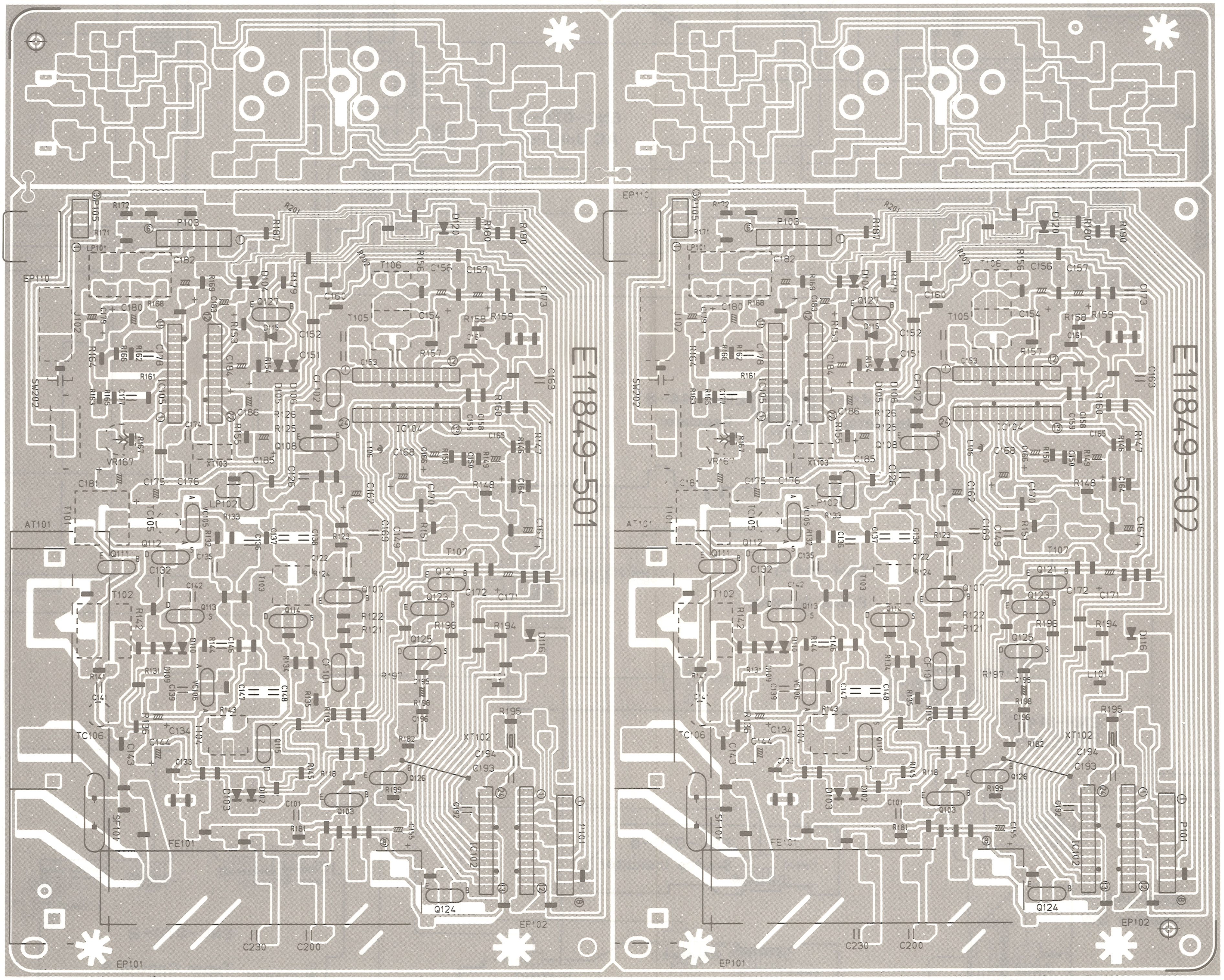
RX-302BK
RX-302LBK

■Volume Control & Power Amp. P.C.B.(ENH-134) (ENH-144)

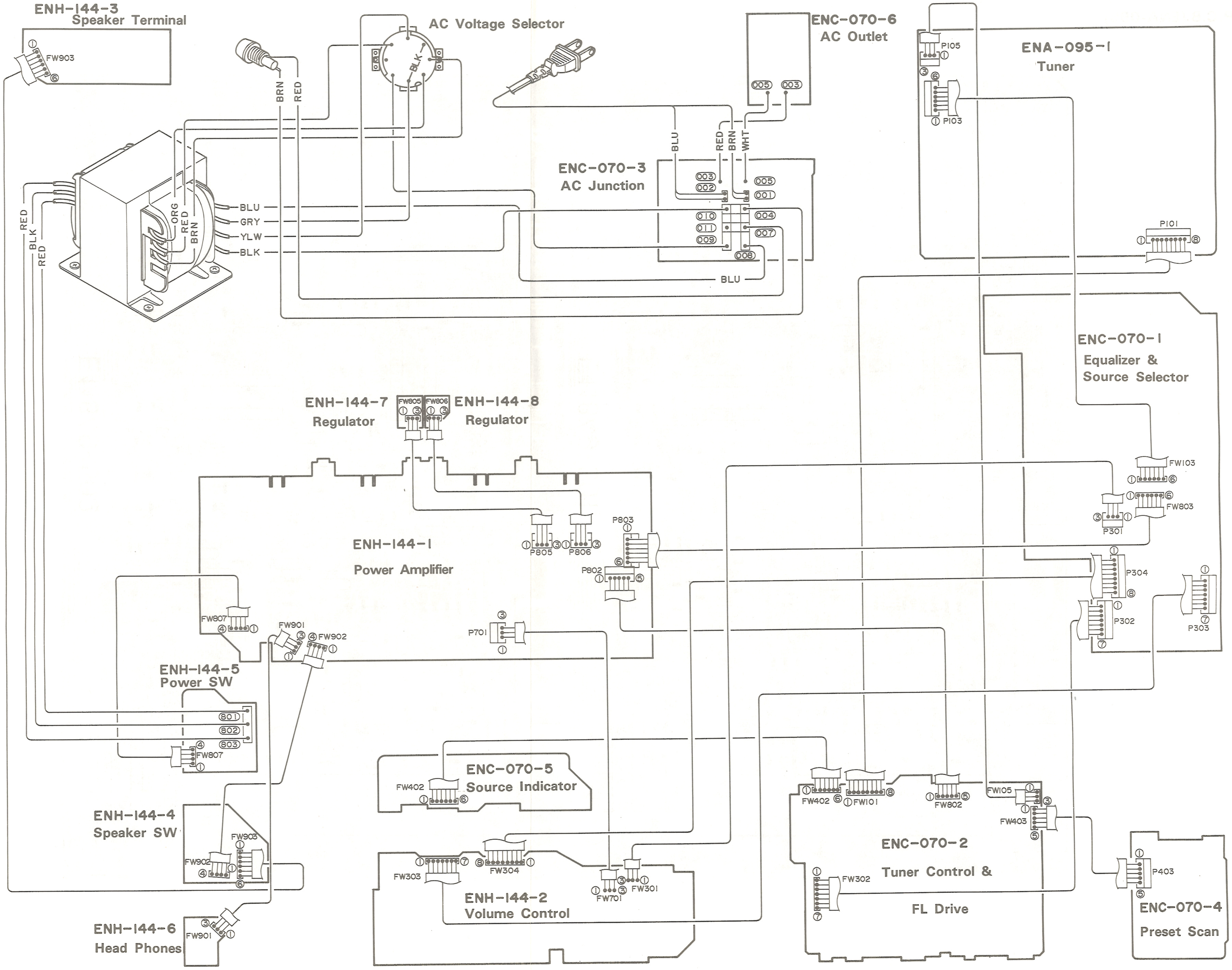

E12190
Q760
Q772
Q752
R754
Q770
Q902
Q901
R901
Q769
Q751
R755
R753
Q771
Q759
D754
R750
R902
Q758
R788
R904
D901
R787
R749
R792
R785
R766
Q764
Q756
Q768
Q762
Q766
R790
R752
R784
R798
R905
R794
R793
L752
L751
Q755
Q757
Q765
Q761
Q767
Q763
R791
R785
R783
C753
C751
C893
C891
D753
C817
C818
P806
P805
R844
P803
C819
R843
R797
C759
C760
C719
R795
R796
C801
C802
C815
C814
C813
Q805
C807
D808
C811
R806
R805
D813
D805
D815
D816
D820
P802
D811
C820
D817
R804
C720
C714
C716
C709
C713
C715
C757
C756
C758
R712
R709
C710
C711
R711
Q903
C821
C910
D822
R841
R842
C807
D803
D801
D802
D804
C805
C806
R816
D903
R931
R942
R941
FW902
FW807
FW901
R912
R924
R926
R925
R935
R922
R917
R916
C903
C905
C904
C909
R715
C717
C721
C708
C707
R708
P701
C702
R704
R707
C705
C704
R703
C703
R701
C701
R702
R710
R716
C712
R801
R802
R803
R811
R815
R818
R819
R822
R812
R813
C816
R831
R832
R833
R844
Q802
C805
FW806
FW805
Q801
C941
C942
J901
FW901
ST901
C971
C970
C967
C966
C963
C965
C961
C962
R964
R963
R961
R962
C968
C972
C964
FW303
C969
SW902
FW903
SW901
FW902
Volume
VR571
FW301
FW701
R575
R576
VR572
Balance
C574
R572
R574
R573
R571
C573
FW304
FW303
16KHz
4KHz
1KHz
250Hz
63Hz
VR505
VR504
VR503
VR502
VR501
SW001
R821
R823
FW807

(No.20142)

■Tuner P.C.B.(ENA-095)


E11849-501
E11849-502
IC101
IC102
IC103
IC104
IC105
T101
T102
T103
T104
T105
T106
T107
VR167
SW202
AT101
TC106
FE101
SF101
CF101
CF102
XT102
XT103
Q124
P101
P103
EP101
EP102
EP110
C200
C230

Connecting Diagram


ENH-144-3
Speaker Terminal
FW903
AC Voltage Selector
BRN
RED
BLK
ENC-070-6
AC Outlet
005
003
ENA-095-1
Tuner
P105
P103
P101
BLU
RED
BRN
WHT
ENC-070-3
AC Junction
003
002
005
001
010
011
009
004
007
008
ORG
RED
BRN
BLU
GRY
YLW
BLK
RED
BLK
RED
BLU
ENC-070-1
Equalizer &
Source Selector
ENH-144-7
Regulator
FW805
FW806
ENH-144-8
Regulator
FW103
FW803
P301
ENH-144-1
Power Amplifier
P805
P806
P803
P802
P304
P302
P303
FW807
FW901
FW902
P701
ENH-144-5
Power SW
801
802
803
FW807
ENC-070-5
Source Indicator
FW402
ENH-144-4
Speaker SW
FW903
FW902
FW105
FW403
FW402
FW101
FW802
ENC-070-2
Tuner Control &
FL Drive
FW302
P403
ENC-070-4
Preset Scan
FW303
FW304
ENH-144-2
Volume Control
FW701
FW301
ENH-144-6
Head Phones
FW901

PARTS LIST

Contents

Exploded View and Parts List 2-3
Printed Circuit Board Ass'y and Parts List 2-7
- ■ ENH-144 ☐ Power Amplifier PC Board Ass'y 2-7
- ■ ENC-070 ☐ Source Selector & SEA Equalizer PC Board Ass'y 2-11
- ■ ENA-095 ☐ Tuner PC Board Ass'y 2-15

Accessories List 2-18
Packing Materials and Part Numbers 2-19

⚠	Item	Part Number	Part Name	Q'ty	Description	Areas
	1	EFP-RX302BKU	Front Panel Ass'y	1		G,A,J,C,U
		EFP-RX302LBKE	Front Panel Ass'y	1		LE,LEF,LBS,LGI
	1-1	E12066-007	Front Panel	1		G,A,J,C,U
		E12066-008	Front Panel	1		LE,LEF,LBS,LGI
	1-2	E26503-002	Push Button	1		
	1-3	E305742-002	Volume Button	1		
	1-4	E306254-003	Window Screen	1	Tuning	G,A,J,C,U
		E306254-004	Window Screen	1		LE,LEF,LBS,LGI
	1-5	E75130-003	FL Screen	1		
	1-6	E75475-001	Indicator Sheet	1		
	1-7	E72968-001	JVC Mark	1		
	2	E306256-001	Volume Knob	1		
	3	E75290-001	Slide Cap	6		
	4	E49267-001	Origin Marking Label	1		LBS
	5	SDSG3008M	Screw	5		Except J,C,U
		SDSG3008M	Screw	7		J,C,U
	6	E48729-008	Plastic Rivet	3		J,C,U
		E48729-008	Plastic Rivet	5		Except J,C,U
	7	E75079-001	Power Button	1		
	8	E75073-001	Push Button	1	SPK (L)	
	9	E75073-002	Push Button	1	SPK (R)	
	10	SBST3006Z	Screw	4		
	11	SBSG3008N	Screw	21		
	12	E306259-002	Front Bracket	1	Left	
	13	SDSF2608Z	Screw	8		
	14	E306260-001	Front Bracket	1	Right	
	15	E26636-001	Matal Cover	1		U,LE,LEF,LBS,LGI
		E26218-001	Matal Cover	1		G,A,J,C
	16	E23862-005	Grill	1		U,LE,LEF,LBS,LGI
	17	E61660-004	Special Screw	4		
	18	SBSG3008M	Screw	14		Except U
		SBSG3008M	Screw	16		U
	19	E305751-001	Side Bracket	1	Right	
	20	E306616-001	Center Bracket	1		
	21	E26630-001	Bottom Plate	1		
	22	E47227-023	Foot	4		
	23	E70281-001	Caution Label	1		J
		E70115-002	Caution Label	1		Except J,C,U
	24	E305750-001	Side Bracket	1	Left	
	25	E75880-001	Protect Sheet	1		
	26	E26217-002	Trans Bracket	1		
	27	SBSG3008Z	Screw	15		
⚠	28	ETP1100-28JA	Power Transformer	1		J,C
⚠		ETP1100-28FA	Power Transformer	1		U
⚠		ETP1100-28EA	Power Transformer	1		A,LE,LEF,LGI
⚠		ETP1100-28XA	Power Transformer	1		G
⚠		ETP1100-28EABS	Power Transformer	1		LBS
	29	E65389-002	Special Screw	4	for Trans	
⚠	30	QMF51U1-4R0S	Fuse	1	F001	J,C
⚠		QMF51E2-2R0J1	Fuse	1	F001	A,G,LE,LEF,LGI
⚠		QMF51E2-2R0J1BS	Fuse	1	F001	LBS
	31	E75912-001	Felt Spacer	1		Except J,C,LGI
	32	E306731-001	Primarry Cover	1		Except J,C,U
	33	E306377-001	Fastener	1		J
	34	E69589-008	Spacer	1		U
⚠	35	QSR0085-018	Voltage Selector	1		
	36	E302764-001	Voltage Selector Cover	1		U
	37	E26639-005	Rear Panel	1		J,C
		E26639-006	Rear Panel	1		U
		E26639-007	Rear Panel	1		A,LBS

⚠: Safety parts

⚠	Item	Part Number	Part Name	Q'ty	Description	Areas
		E26639-004	Rear Panel	1		G,LE,LEF,LGI
	—	E306019-053	Rating Label	1		A
	—	E306019-055	Rating Label	1		G
	—	E306019-058	Rating Label	1		LGI
	—	E306019-059	Rating Label	1	Made in Malaysia	U
	38	E70078-001	GND.Terminal	1		
	39	QMG0301-003	Fuse Holder	1		U
	40	E69291-001	Fuse Cover	1		U
⚠	41	QMF51E2-2R0J1	Fuse	1	F001	U
⚠	42	QHS3876-162	Cord Stopper	1		Except LBS
⚠		QHS3876-162BS	Cord Stopper	1		LBS
⚠	43	QMP1480-200	Power Cord	1		J,C
⚠		QMP7520-200	Power Cord	1		U
⚠		QMP3900-200	Power Cord	1		LE,LEF,LGI
⚠		QMP2560-244	Power Cord	1		A
⚠		QMP39A0-200	Power Cord	1		G
		QMP9017-008BS	Power Cord	1		LBS
	44	E75909-001	Blind Sheet	1		
	45	E75882-001	Protect Sheet	1		
	46	E3400-446	Felt Spacer	1		J,C
	47	SBST3006M	Screw	1		Except G
		SBST3006M	Screw	2		G
	—	E61029-005	Number Label	1		J,C,U,LBS
	—	E60965-001BS	Warning Label	1		LBS
	—	E74792-046	FTZ Label	1		G
	—	QZL1001-001	UL Label	1		J
	—	E45858-002	CSA Label	1		C
	—	E70028-001	Approval Label	1		LE
	—	QZL1007-001	BEAB Label	1		LBS
	—	E67199-001	Caution Label	1		J
	—	E65507-001	Caution Label	1		C

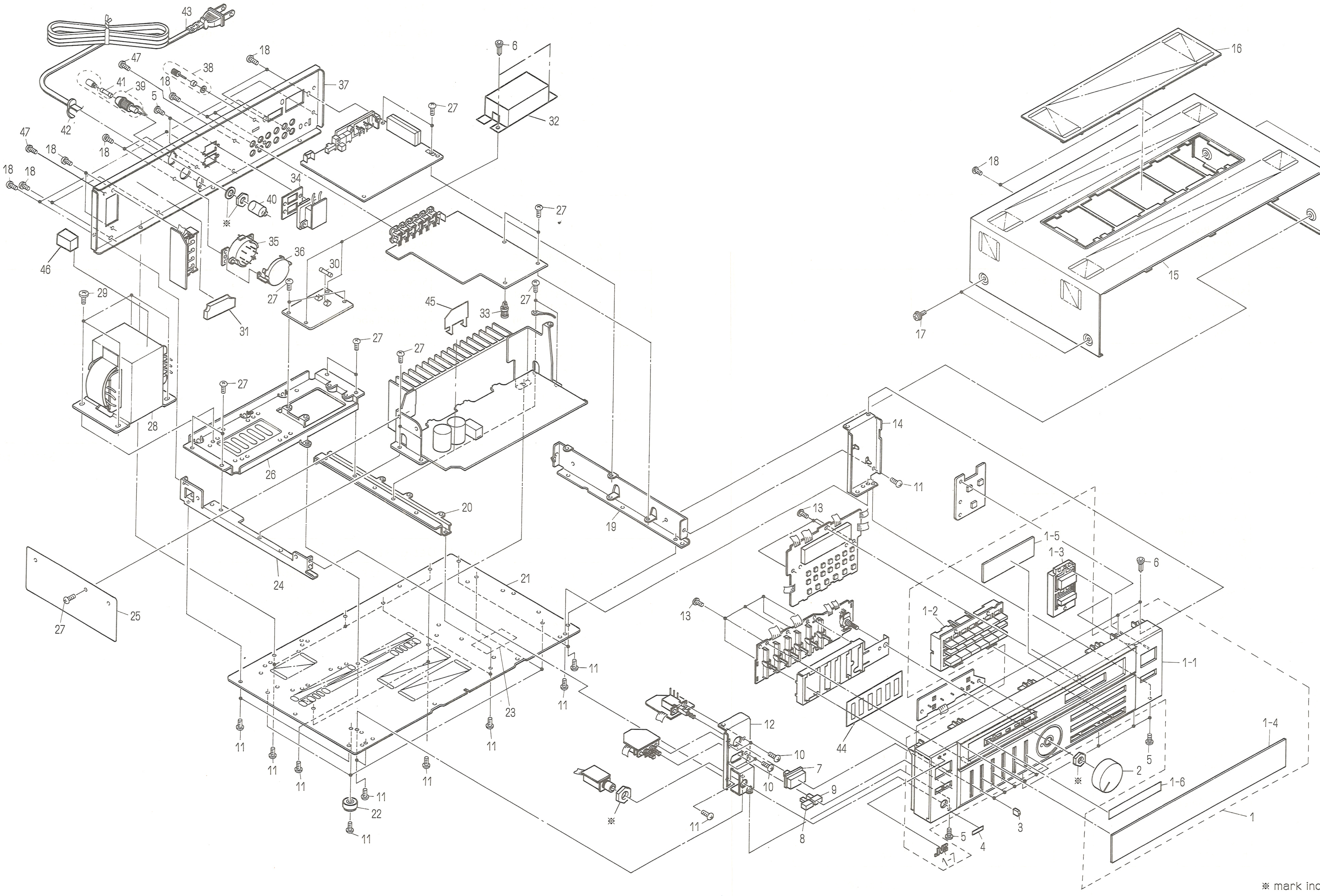
⚠: Safety parts

The Marks Designated Areas

J··················the U.S.A.
C··················Canada
A··················Australia
G··················West Germany
U··················Other Countries

LE,LEF········Continental Europe (with LW)
LBS·············the U.K. (with LW)
LGI·············Italy (with LW)
No mark indicates all areas.

Exploded View and Parts List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14
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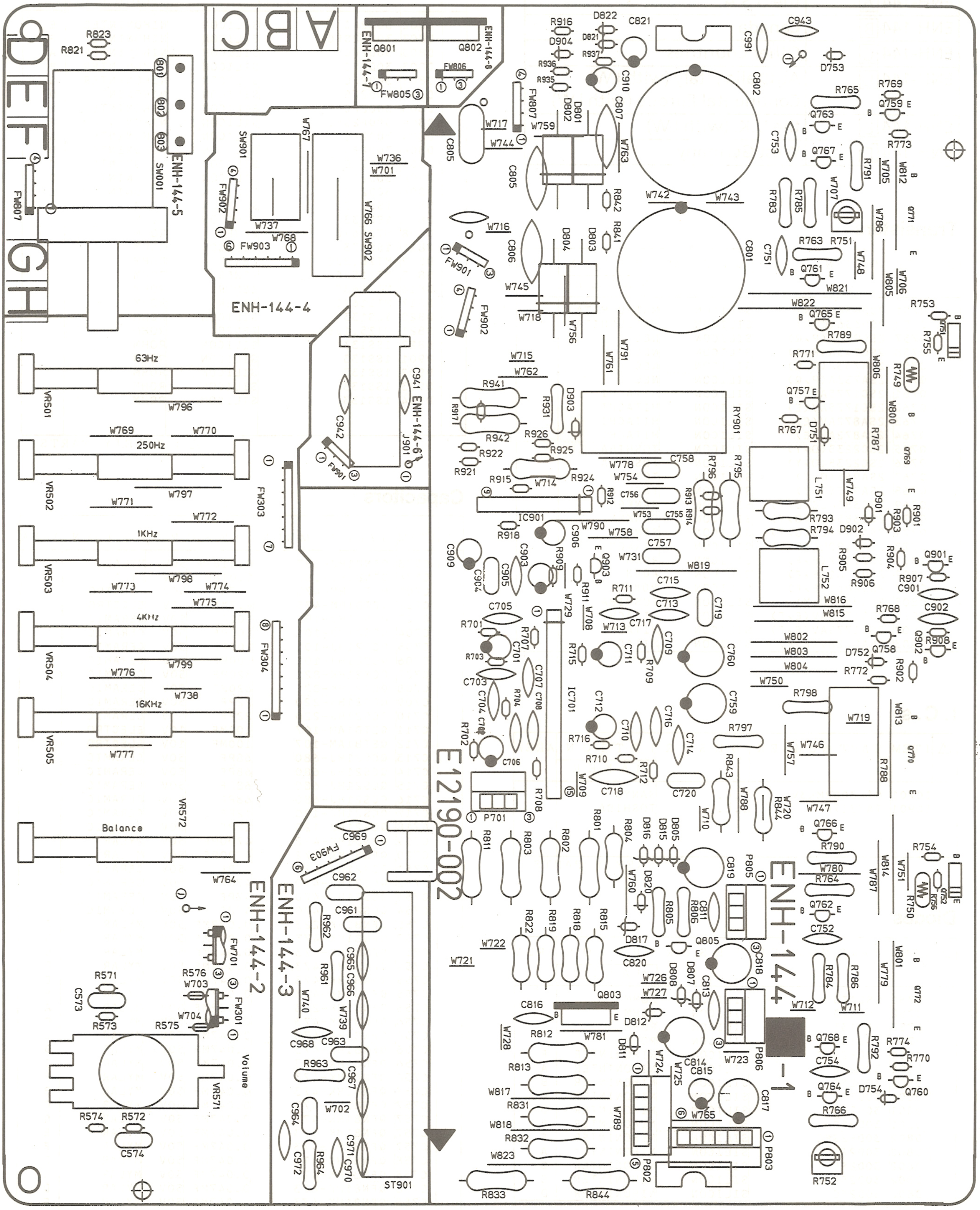
1-3
6
24
21
25
27
13
1-2
1-1
11
11
23
12
44
10
7
10
9
5
2
1-4
1-6
11
11
11
11
11
22
11
11
8
3
1
5
4
1-7
※

※ mark indicates attached part.

Printed Circuit Board Ass'y and Parts List

■ENH-144☐ Power Amplifier PC Board Ass'y

Note: ENH-144☐varies according to the areas employed . See note (1) when placing an order.


ENH-144-1
ENH-144-2
ENH-144-3
ENH-144-4
ENH-144-5
ENH-144-6
ENH-144-7
ENH-144-8
E12190-002
A B C
D E F
G H
63Hz
250Hz
1KHz
4KHz
16KHz
Balance
Volume
VR501
VR502
VR503
VR504
VR505
VR571
VR572
SW901
SW902
SW001
IC701
IC901
RY901
ST901
J901
Q801
Q802
C801
C802
P701
P802
P803
P805
P806

Note (1)

PC Board Ass'y	Designated Areas
ENH-144 A	the U.S.A.
ENH-144 B	Canada
ENH-144 C	Other Countries
ENH-144 D	Australia , Italy (with LW) Continental Europe (with LW)
ENH-144 E	the U.K. (with LW)
ENH-144 F	West Germany

Transistors

⚠	ITEM	PART NUMBER	DESCRIPTION	MAKER	AREA
	Q751	2SD636(Q,R)	SILICON	MATSUSHITA	
	Q752	2SD636(Q,R)	SILICON	MATSUSHITA	
	Q757	2SC945A(P,Q)	SILICON	NEC	
	Q753	2SC945A(P,Q)	SILICON	NEC	
	Q759	2SA733A(P,Q)	SILICON	NEC	
	Q760	2SA733A(P,Q)	SILICON	NEC	
	Q761	2SC1775AV(E)	SILICON	HITACHI	
	Q762	2SC1775AV(E)	SILICON	HITACHI	
	Q763	2SA872AV(E)	SILICON	HITACHI	
	Q764	2SA872AV(E)	SILICON	HITACHI	
	Q765	2SC2235(O,Y)	SILICON	TOSHIBA	
	Q766	2SC2235(O,Y)	SILICON	TOSHIBA	
	Q767	2SA965(O,Y)	SILICON	TOSHIBA	
	Q768	2SA965(O,Y)	SILICON	TOSHIBA	
	Q769	2SC3854LC(O,Y)	SILICON	SANKEN	
	Q770	2SC3854LC(O,Y)	SILICON	SANKEN	
	Q771	2SA1490LC(O,Y)	SILICON	SANKEN	
	Q772	2SA1490LC(O,Y)	SILICON	SANKEN	
	Q801	2SB1187(E,F)	SILICON	ROHM	
	Q802	2SD2061(E,F)	SILICON	ROHM	
	Q803	2SD2061(E,F)	SILICON	ROHM	
	Q805	2SA965(O,Y)	SILICON	TOSHIBA	
	Q901	2SC1775AV(E,F)	SILICON	HITACHI	
	Q902	2SC1775AV(E,F)	SILICON	HITACHI	
	Q903	2SA872AV(E,F)	SILICON	HITACHI	

⚠ : SAFETY PARTS

I. C. s

⚠	ITEM	PART NUMBER	DESCRIPTION	MAKER	AREA
	IC701	STK3082MK3V	I.C.	SANYO	
	IC901	TA7317P	I.C.	TOSHIBA	

⚠ : SAFETY PARTS

Diodes

⚠	ITEM	PART NUMBER	DESCRIPTION	MAKER	AREA
	D751	1SS133	SILICON	ROHM	
	D752	1SS133	SILICON	ROHM	
	D753	1SS133	SILICON	ROHM	
	D754	1SS133	SILICON	ROHM	
	D801	30DF2SFC	SILICON	NIHONINTER	F
	D801	30D2FC	SILICON	NIHONINTER	A
	D801	30D2FC	SILICON	NIHONINTER	B
	D801	30D2FC	SILICON	NIHONINTER	C
	D801	30D2FC	SILICON	NIHONINTER	D
	D801	30D2FC	SILICON	NIHONINTER	E
	D802	30DF2SFC	SILICON	NIHONINTER	F
	D802	30D2FC	SILICON	NIHONINTER	A
	D802	30D2FC	SILICON	NIHONINTER	B
	D802	30D2FC	SILICON	NIHONINTER	C
	D802	30D2FC	SILICON	NIHONINTER	D

Diodes

⚠	ITEM	PART NUMBER	DESCRIPTION	MAKER	AREA
	D802	30D2FC	SILICON	NIHONINTER	E
	D803	30DF2SFC	SILICON	NIHONINTER	F
	D803	30D2FC	SILICON	NIHONINTER	A
	D803	30D2FC	SILICON	NIHONINTER	B
	D803	30D2FC	SILICON	NIHONINTER	C
	D803	30D2FC	SILICON	NIHONINTER	D
	D803	30D2FC	SILICON	NIHONINTER	E
	D804	30DF2SFC	SILICON	NIHONINTER	F
	D804	30D2FC	SILICON	NIHONINTER	A
	D804	30D2FC	SILICON	NIHONINTER	B
	D804	30D2FC	SILICON	NIHONINTER	C
	D804	30D2FC	SILICON	NIHONINTER	D
	D804	30D2FC	SILICON	NIHONINTER	E
	D805	1SS133	SILICON	ROHM	
	D807	1SS133	SILICON	ROHM	
	D808	MTZ16JC	ZENER	ROHM	
	D811	1SS133	SILICON	ROHM	
	D812	MTZ6.2JC	ZENER	ROHM	
	D815	MTZ15JC	ZENER	ROHM	
	D816	MTZ16JC	ZENER	ROHM	
	D817	MTZ16JC	ZENER	ROHM	
	D820	1SS133	SILICON	ROHM	
	D821	MTZ5.1JB	ZENER	ROHM	
	D822	1SS133	SILICON	ROHM	
	D901	1SS133	SILICON	ROHM	
	D902	1SS133	SILICON	ROHM	
	D903	1SS133	SILICON	ROHM	
	D904	1SS133	SILICON	ROHM	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C573	QFN81HJ-183	0.018MF	50V	MYLAR	
	C574	QFN81HJ-183	0.018MF	50V	MYLAR	
	C701	QETB1HM-475	4.7MF	50V	ELECTRO	
	C702	QETB1HM-475	4.7MF	50V	ELECTRO	
	C703	QCS21HJ-101	100PF	50V	CERAMIC	
	C704	QCS21HJ-101	100PF	50V	CERAMIC	
	C705	QCS21HJ-101	100PF	50V	CERAMIC	
	C706	QCS21HJ-101	100PF	50V	CERAMIC	
	C707	QCY21HK-821	820PF	50V	CERAMIC	
	C708	QCY21HK-821	820PF	50V	CERAMIC	
	C709	QCS21HJ-220	22PF	50V	CERAMIC	
	C710	QCS21HJ-220	22PF	50V	CERAMIC	
	C711	QETB1AM-107	100MF	10V	ELECTRO	
	C712	QETB1AM-107	100MF	10V	ELECTRO	
	C713	QCS21HJ-680	68PF	50V	CERAMIC	
	C714	QCS21HJ-680	68PF	50V	CERAMIC	
	C715	QCS21HJ-680	68PF	50V	CERAMIC	
	C716	QCS21HJ-680	68PF	50V	CERAMIC	
	C717	QCS21HJ-120	12PF	50V	CERAMIC	
	C718	QCS21HJ-120	12PF	50V	CERAMIC	
	C719	QFN81HK-472	4700PF	50V	MYLAR	
	C720	QFN81HK-472	4700PF	50V	MYLAR	
	C751	QCS21HJ-470	47PF	50V	CERAMIC	
	C752	QCS21HJ-470	47PF	50V	CERAMIC	
	C753	QCS21HJ-470	47PF	50V	CERAMIC	
	C754	QCS21HJ-470	47PF	50V	CERAMIC	
	C755	QFN81HK-223	0.022MF	50V	MYLAR	A
	C755	QFN81HK-473	0.047MF	50V	MYLAR	B
	C755	QFN81HK-473	0.047MF	50V	MYLAR	C
	C755	QFN81HK-473	0.047MF	50V	MYLAR	D
	C755	QFN81HK-473	0.047MF	50V	MYLAR	E
	C755	QFN81HK-473	0.047MF	50V	MYLAR	F
	C756	QFN81HK-223	0.022MF	50V	MYLAR	A
	C756	QFN81HK-473	0.047MF	50V	MYLAR	B
	C756	QFN81HK-473	0.047MF	50V	MYLAR	C
	C756	QFN81HK-473	0.047MF	50V	MYLAR	D
	C756	QFN81HK-473	0.047MF	50V	MYLAR	E
	C756	QFN81HK-473	0.047MF	50V	MYLAR	F
	C757	QFN81HK-473	0.047MF	50V	MYLAR	B
	C757	QFN81HK-473	0.047MF	50V	MYLAR	C
	C757	QFN81HK-473	0.047MF	50V	MYLAR	D
	C757	QFN81HK-473	0.047MF	50V	MYLAR	E
	C757	QFN81HK-473	0.047MF	50V	MYLAR	F
	C758	QFN81HK-473	0.047MF	50V	MYLAR	B
	C758	QFN81HK-473	0.047MF	50V	MYLAR	C
	C758	QFN81HK-473	0.047MF	50V	MYLAR	D
	C758	QFN81HK-473	0.047MF	50V	MYLAR	E
	C758	QFN81HK-473	0.047MF	50V	MYLAR	F
	C759	QETB1JM-476	47MF	63V	ELECTRO	
	C760	QETB1JM-476	47MF	63V	ELECTRO	

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C801	EEW5608-878E	8700MF		ELECTRO	
	C802	EEW5608-878E	8700MF		ELECTRO	
	C805	QCE22HP-103	0.01MF	500V	CERAMIC	A
	C805	QCE22HP-103	0.01MF	500V	CERAMIC	B
	C805	QFN82CK-104	0.1MF	160V	MYLAR	C
	C805	QFN82CK-104	0.1MF	160V	MYLAR	D
	C805	QFN82CK-104	0.1MF	160V	MYLAR	E
	C805	QFN82CK-104	0.1MF	160V	MYLAR	F
	C806	QCE22HP-103	0.01MF	500V	CERAMIC	
	C807	QCE22HP-103	0.01MF	500V	CERAMIC	
	C811	QCF21HP-472	4700PF	50V	CERAMIC	
	C813	QCF21HP-472	4700PF	50V	CERAMIC	
	C814	QETB1EM-107	100MF	25V	ELECTRO	A
	C814	QETB1EM-107	100MF	25V	ELECTRO	B
	C814	QETB1VM-107	100MF	35V	ELECTRO	C
	C814	QETB1VM-107	100MF	35V	ELECTRO	D
	C814	QETB1VM-107	100MF	35V	ELECTRO	E
	C814	QETB1VM-107	100MF	35V	ELECTRO	F
	C815	QETB1EM-107	100MF	25V	ELECTRO	A
	C816	QCF21HP-472	4700PF	50V	CERAMIC	
	C817	QETB1EM-107	100MF	25V	ELECTRO	
	C818	QETB1EM-107	100MF	25V	ELECTRO	
	C819	QETB1HM-476	47MF	50V	ELECTRO	
	C820	QCF21HP-472	4700PF	50V	CERAMIC	
	C821	QETB1EM-106	10MF	25V	ELECTRO	
	C823	QETB1EM-227	220MF	25V	ELECTRO	
	C824	QETB1EM-227	220MF	25V	ELECTRO	B
	C824	QETB1EM-227	220MF	25V	ELECTRO	C
	C824	QETB1EM-227	220MF	25V	ELECTRO	D
	C824	QETB1EM-227	220MF	25V	ELECTRO	E
	C824	QETB1EM-227	220MF	25V	ELECTRO	F
	C901	QCF21HP-223	0.022MF	50V	CERAMIC	
	C902	QCF21HP-223	0.022MF	50V	CERAMIC	
	C903	QETB1HM-226	22MF	50V	ELECTRO	
	C904	QFN81HK-223	0.022MF	50V	MYLAR	
	C905	QCY21HK-102	1000PF	50V	CERAMIC	
	C906	QETB1AM-476	47MF	10V	ELECTRO	
	C909	QETB1CM-226	22MF	16V	ELECTRO	
	C910	QETB1HM-225	2.2MF	50V	ELECTRO	
	C941	QCS21HJ-101	100PF	50V	CERAMIC	F
	C942	QCS21HJ-101	100PF	50V	CERAMIC	F
	C943	QCF21HP-223	0.022MF	50V	CERAMIC	F
	C961	QFN81HK-223	0.022MF	50V	MYLAR	F
	C962	QFN81HK-223	0.022MF	50V	MYLAR	F
	C963	QFN81HK-223	0.022MF	50V	MYLAR	F
	C964	QFN81HK-223	0.022MF	50V	MYLAR	F
	C965	QCS21HJ-331	330PF	50V	CERAMIC	F
	C967	QCS21HJ-331	330PF	50V	CERAMIC	F
	C968	QCY21HK-102	1000PF	50V	CERAMIC	F
	C970	QCS21HJ-101	100PF	50V	CERAMIC	F
	C971	QCS21HJ-101	100PF	50V	CERAMIC	F
	C972	QCS21HJ-101	100PF	50V	CERAMIC	F
	C991	QCS21HJ-331	330PF	50V	CERAMIC	F

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R571	QRD167J-333	33K	1/6W	CARBON	
	R572	QRD167J-333	33K	1/6W	CARBON	
	R573	QRD167J-223	22K	1/6W	CARBON	
	R574	QRD167J-223	22K	1/6W	CARBON	
	R575	QRD167J-332	3.3K	1/6W	CARBON	
	R576	QRD167J-332	3.3K	1/6W	CARBON	
	R701	QRD167J-222	2.2K	1/6W	CARBON	
	R702	QRD167J-222	2.2K	1/6W	CARBON	
	R703	QRD167J-913	91K	1/6W	CARBON	
	R704	QRD167J-913	91K	1/6W	CARBON	
	R707	QRD167J-101	100	1/6W	CARBON	
	R708	QRD167J-101	100	1/6W	CARBON	
	R709	QRD167J-152	1.5K	1/6W	CARBON	
	R710	QRD167J-152	1.5K	1/6W	CARBON	
	R711	QRD167J-104	100K	1/6W	CARBON	
	R712	QRD167J-104	100K	1/6W	CARBON	
	R715	QRD167J-911	910	1/6W	CARBON	
	R716	QRD167J-911	910	1/6W	CARBON	
	R749	SDT250			THERMISTER	
	R750	SDT250			THERMISTER	
	R751	QVPE601-501	500	0.15W	VARIABLE	
	R752	QVPE601-501	500	0.15W	VARIABLE	
	R753	QRD167J-152	1.5K	1/6W	CARBON	
	R754	QRD167J-152	1.5K	1/6W	CARBON	
	R755	QRD167J-391	390	1/6W	CARBON	

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R756	QRD167J-391	390	1/6W	CARBON	
⚠	R763	QRD14CJ-100S	10	1/4W	UNF.CARBON	
⚠	R764	QRD14CJ-100S	10	1/4W	UNF.CARBON	
⚠	R765	QRD14CJ-100S	10	1/4W	UNF.CARBON	
⚠	R766	QRD14CJ-100S	10	1/4W	UNF.CARBON	
	R767	QRD167J-820	82	1/6W	CARBON	
	R768	QRD167J-820	82	1/6W	CARBON	
	R769	QRD167J-820	82	1/6W	CARBON	
	R770	QRD167J-820	82	1/6W	CARBON	
	R771	QRD167J-151	150	1/6W	CARBON	
	R772	QRD167J-151	150	1/6W	CARBON	
	R773	QRD167J-151	150	1/6W	CARBON	
	R774	QRD167J-151	150	1/6W	CARBON	
⚠	R783	QRD14CJ-272S	2.7K	1/4W	UNF.CARBON	
⚠	R784	QRD14CJ-272S	2.7K	1/4W	UNF.CARBON	
⚠	R785	QRD14CJ-271S	270	1/4W	UNF.CARBON	
⚠	R786	QRD14CJ-271S	270	1/4W	UNF.CARBON	
⚠	R787	ERF032K-R22	0.22	3W	CEMENT	
⚠	R788	ERF032K-R22	0.22	3W	CEMENT	
⚠	R789	QRD14CJ-100S	10	1/4W	UNF.CARBON	A
⚠	R789	QRD14CJ-100S	10	1/4W	UNF.CARBON	B
⚠	R789	QRZ0077-100	10	1/4W	FUSIBLE	C
⚠	R789	QRZ0077-100	10	1/4W	FUSIBLE	D
⚠	R789	QRZ0077-100	10	1/4W	FUSIBLE	F
⚠	R790	QRD14CJ-100S	10	1/4W	UNF.CARBON	A
⚠	R790	QRD14CJ-100S	10	1/4W	UNF.CARBON	B
⚠	R790	QRZ0077-100	10	1/4W	FUSIBLE	C
⚠	R790	QRZ0077-100	10	1/4W	FUSIBLE	D
⚠	R790	QRZ0077-100	10	1/4W	FUSIBLE	F
⚠	R791	QRD14CJ-100S	10	1/4W	UNF.CARBON	A
⚠	R791	QRD14CJ-100S	10	1/4W	UNF.CARBON	B
⚠	R791	QRZ0077-100	10	1/4W	FUSIBLE	C
⚠	R791	QRZ0077-100	10	1/4W	FUSIBLE	D
⚠	R791	QRZ0077-100	10	1/4W	FUSIBLE	F
⚠	R792	QRD14CJ-100S	10	1/4W	UNF.CARBON	A
⚠	R792	QRD14CJ-100S	10	1/4W	UNF.CARBON	B
⚠	R792	QRZ0077-100	10	1/4W	FUSIBLE	C
⚠	R792	QRZ0077-100	10	1/4W	FUSIBLE	D
⚠	R792	QRZ0077-100	10	1/4W	FUSIBLE	F
⚠	R793	QRD125J-330	33	1/2W	UNF.CARBON	
⚠	R794	QRD125J-330	33	1/2W	UNF.CARBON	
⚠	R795	QRG022J-100A	10	2W	O.M.FILM	
⚠	R796	QRG022J-100A	10	2W	O.M.FILM	
⚠	R797	QRD14CJ-470S	47	1/4W	UNF.CARBON	A
⚠	R797	QRD14CJ-470S	47	1/4W	UNF.CARBON	B
⚠	R797	QRZ0077-330	33	1/4W	FUSIBLE	C
⚠	R797	QRZ0077-330	33	1/4W	FUSIBLE	D
⚠	R797	QRZ0077-330	33	1/4W	FUSIBLE	F
⚠	R798	QRD14CJ-470S	47	1/4W	UNF.CARBON	A
⚠	R798	QRD14CJ-470S	47	1/4W	UNF.CARBON	B
⚠	R798	QRZ0077-330	33	1/4W	FUSIBLE	C
⚠	R798	QRZ0077-330	33	1/4W	FUSIBLE	D
⚠	R798	QRZ0077-330	33	1/4W	FUSIBLE	F
⚠	R801	QRG022J-390A	39	2W	O.M.FILM	A
⚠	R802	QRG022J-390A	39	2W	O.M.FILM	A
⚠	R802	QRG022J-180A	18	2W	O.M.FILM	B
⚠	R802	QRG022J-180A	18	2W	O.M.FILM	C
⚠	R802	QRG022J-180A	18	2W	O.M.FILM	D
⚠	R802	QRG022J-180A	18	2W	O.M.FILM	E
⚠	R802	QRG022J-180A	18	2W	O.M.FILM	F
⚠	R804	QRD125J-392	3.9K	1/2W	UNF.CARBON	
⚠	R805	QRD14CJ-272S	2.7K	1/4W	UNF.CARBON	
⚠	R806	QRD14CJ-470S	47	1/4W	UNF.CARBON	
⚠	R811	QRG022J-331A	330	2W	O.M.FILM	
⚠	R812	QRG022J-331A	330	2W	O.M.FILM	
⚠	R813	QRG022J-331A	330	2W	O.M.FILM	
⚠	R815	QRD125J-562	5.6K	1/2W	UNF.CARBON	
⚠	R818	QRD125J-152	1.5K	1/2W	UNF.CARBON	
⚠	R819	QRD125J-152	1.5K	1/2W	UNF.CARBON	
	R821	QRD167J-183	18K	1/6W	CARBON	
⚠	R822	QRD125J-562	5.6K	1/2W	UNF.CARBON	
	R823	QRD167J-183	18K	1/6W	CARBON	
⚠	R831	QRG022J-561A	560	2W	O.M.FILM	
⚠	R832	QRG022J-681A	680	2W	O.M.FILM	
⚠	R833	QRG022J-681A	680	2W	O.M.FILM	
⚠	R834	QRG022J-681A	680	2W	O.M.FILM	
⚠	R835	QRD14CJ-100S	10	1/4W	UNF.CARBON	B
⚠	R835	QRZ0077-100	10	1/4W	FUSIBLE	C
⚠	R835	QRZ0077-100	10	1/4W	FUSIBLE	D
⚠	R835	QRZ0077-100	10	1/4W	FUSIBLE	E
⚠	R835	QRZ0077-100	10	1/4W	FUSIBLE	F
	R841	QRD167J-104	100K	1/6W	CARBON	
	R842	QRD167J-104	100K	1/6W	CARBON	
⚠	R843	QRD125J-2R2	2.2	1/2W	UNF.CARBON	
⚠	R844	QRD125J-2R2	2.2	1/2W	UNF.CARBON	
	R901	QRD167J-681	680	1/6W	CARBON	
	R902	QRD167J-681	680	1/6W	CARBON	
	R903	QRD167J-562	5.6K	1/6W	CARBON	
	R904	QRD167J-562	5.6K	1/6W	CARBON	
	R905	QRD167J-123	12K	1/6W	CARBON	

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R906	QRD167J-123	12K	1/6W	CARBON	
	R907	QRD167J-152	1.5K	1/6W	CARBON	
	R908	QRD167J-152	1.5K	1/6W	CARBON	
	R909	QRD167J-103	10K	1/6W	CARBON	
	R911	QRD167J-332	3.3K	1/6W	CARBON	
	R912	QRD167J-473	47K	1/6W	CARBON	
	R913	QRD167J-104	100K	1/6W	CARBON	
	R914	QRD167J-823	82K	1/6W	CARBON	
	R915	QRD167J-473	47K	1/6W	CARBON	
	R916	QRD167J-563	56K	1/6W	CARBON	
	R917	QRD167J-683	68K	1/6W	CARBON	
	R918	QRD167J-392	3.9K	1/6W	CARBON	
	R921	QRD167J-224	220K	1/6W	CARBON	
	R922	QRD167J-182	1.8K	1/6W	CARBON	
⚠	R924	QRG022J-821A	820	2W	O.M.FILM	
	R925	QRD167J-151	150	1/6W	CARBON	
	R926	QRD167J-151	150	1/6W	CARBON	
⚠	R931	QRD14CJ-330S	33	1/4W	UNF.CARBON	
	R935	QRD167J-562	5.6K	1/6W	CARBON	
	R936	QRD167J-562	5.6K	1/6W	CARBON	
	R937	QRD167J-103	10K	1/6W	CARBON	
⚠	R941	QRG022J-471A	470	2W	O.M.FILM	
⚠	R942	QRG022J-471A	470	2W	O.M.FILM	
⚠	R961	QRZ0077-100	10	1/4W	FUSIBLE	F
⚠	R962	QRZ0077-100	10	1/4W	FUSIBLE	F
⚠	R963	QRZ0077-100	10	1/4W	FUSIBLE	F
⚠	R964	QRZ0077-100	10	1/4W	FUSIBLE	F
	VR501	QVUB06W-E15B	100K		VARIABLE	
	VR502	QVUB06W-E15B	100K		VARIABLE	
	VR503	QVUB06W-E15B	100K		VARIABLE	
	VR504	QVUB06W-E15B	100K		VARIABLE	
	VR505	QVUB06W-E15B	100K		VARIABLE	
	VR571	QVDB90B-EF5C	250K		VARIABLE	
	VR572	QVUA06W-EF5B	250K		VARIABLE	

⚠ : SAFETY PARTS

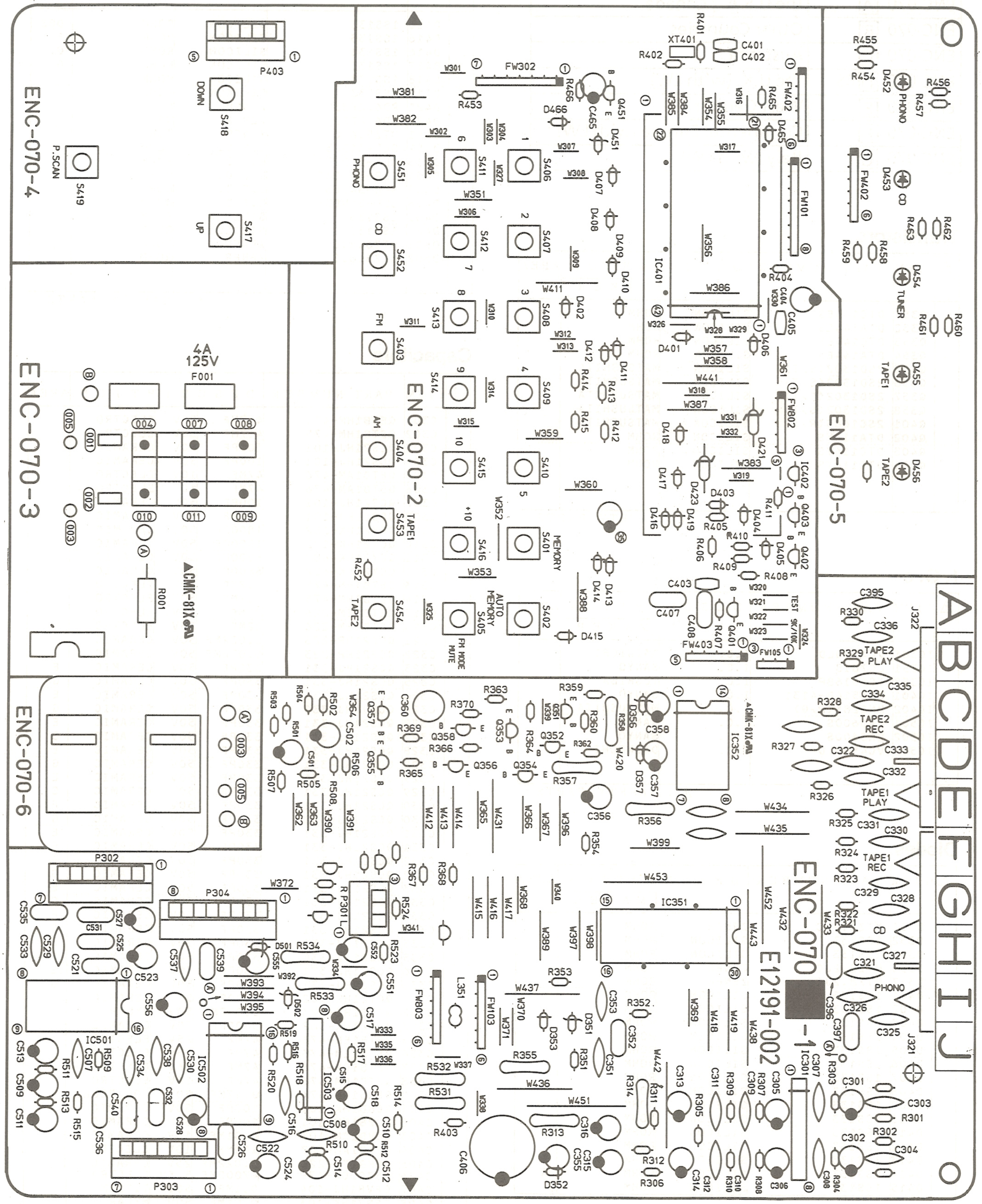
Others

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		EMB90TV-801A	SPEAKER TERMINAL	
		EWT011-100	TERMINAL WIRE	
		E12190-002	CIRCUIT BOARD	A
		E12190-002	CIRCUIT BOARD	B
		E12190-002	CIRCUIT BOARD	C
		E12190-002	CIRCUIT BOARD	D
		E12190-002	CIRCUIT BOARD	E
		E12190-002	CIRCUIT BOARD	F
		E305747-001	HEAT SINK BRACKET	
		E305748-001	HEAT SINK BRACKET	
		E306617-001	SHIELD BRACKET	
		E306629-001	HEAT SINK	A
		E306629-001	HEAT SINK	B
		E306629-001	HEAT SINK	C
		E306629-001	HEAT SINK	D
		E306629-001	HEAT SINK	E
		E306629-001	HEAT SINK	F
		E67764-103	WRAPPING TERMINAL	
		E70225-002	EARTH PLATE	F
		E70859-001	EARTH PLATE	
		E70859-001	EARTH PLATE	F
		E73525-003	SCREW	
		E75882-001	SHEET	
		SBSG3008Z	SCREW	
	J901	QMS6A40-021	HEADPHONE JACK	
	L751	EQL0001-1R0	INDUCTOR	
	L752	EQL0001-1R0	INDUCTOR	
	P701	VMC0107-003	CONNECTOR	
	P802	VMC0107-005	CONNECTOR	
	P803	VMC0107-006	SOCKET	
	P805	VMC0107-003	CONNECTOR	
	P806	VMC0107-003	CONNECTOR	
	FW301	EWR23C-30JN	FLAT WIRE	
	FW303	EWR37B-40LST	FLAT WIRE	
	FW304	EWR38B-40LST	FLAT WIRE	
	FW701	EWR23C-20JN	FLAT WIRE	
	FW805	EWR33B-20LST	FLAT WIRE	
	FW806	EWR33B-20LST	FLAT WIRE	
	FW807	EWR34B-20SST	FLAT WIRE	
	FW901	EWR33B-20SST	FLAT WIRE	
	FW902	EWR34B-20SST	FLAT WIRE	
	FW903	EWR36B-30SST	FLAT WIRE	
	RY901	ESK5D24-218	RELAY	
	SW001	QSP2J21-E02	PUSH SWITCH	
	SW901	QST4231-E01	PUSH SWITCH	
	SW902	QST4231-E01	PUSH SWITCH	

⚠ : SAFETY PARTS

■ENC-070 ☐Source Selector & SEA Equalizer PC Board Ass'y

Note: ENC-070 ☐varies according to the areas employed . See note (1) when placing an order.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S418
P.SCAN
S419
UP
S417
4A
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R001
CMK-81X
PHONO
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CD
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MEMORY
AUTO MEMORY
S405
S402
FM MODE MUTE
FW302
FW402
FW101
FW802
FW403
FW105
FW803
FW103
IC401
IC402
IC351
IC352
IC501
IC502
IC503
IC301
XT401
TEST
TUNER
TAPE2 PLAY
TAPE2 REC
TAPE1 PLAY
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J322
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P302
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L351
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Note (1)

PC Board Ass'y	Designated Areas
ENC-070 A	the U.S.A. , Canada
ENC-070 B	Other Countries
ENC-070 C	Australia
ENC-070 DBS	the U.K. (with LW)
ENC-070 E	West Germany
ENC-070 F	Continental Europe (with LW)
ENC-070 G	Italy (with LW)

Transistors

⚠	ITEM	PART NUMBER	DESCRIPTION		AREA
				MAKER	
	Q351	DTC144ES	SILICON	ROHM	
	Q352	DTA144ES	SILICON	ROHM	
	Q353	DTC144ES	SILICON	ROHM	
	Q354	DTA144ES	SILICON	ROHM	
	Q355	2SD1302(S,T)	SILICON	MATSUSHITA	
	Q356	2SD1302(S,T)	SILICON	MATSUSHITA	
	Q357	2SD1302(S,T)	SILICON	MATSUSHITA	
	Q358	2SD1302(S,T)	SILICON	MATSUSHITA	
	Q401	2SC1685(R,S)	SILICON	MATSUSHITA	
	Q402	DTA114YS	SILICON	ROHM	
	Q403	DTC114YS	SILICON	ROHM	
	Q451	DTC114YS	SILICON	ROHM	

⚠ : SAFETY PARTS

I. C. s

⚠	ITEM	PART NUMBER	DESCRIPTION		AREA
				MAKER	
	IC301	VC4580LD	I.C.	DAINICHI	
	IC351	LC7818	I.C.	SANYO	
	IC352	TC4016BP	I.C.	TOSHIBA	
	IC401	LC6514B-4131	I.C.	SANYO	
	IC402	MN1281(P,Q)	I.C.	MATSUSHITA	
	IC501	LA3600S	I.C.	SANYO	
	IC502	LA3600S	I.C.	SANYO	
	IC503	VC4580LD	I.C.	DAINICHI	

⚠ : SAFETY PARTS

Diodes

⚠	ITEM	PART NUMBER	DESCRIPTION		AREA
				MAKER	
	D351	MTZ8.2JC	ZENER	ROHM	
	D352	1SS133	SILICON	ROHM	
	D353	1SS133	SILICON	ROHM	
	D356	MTZ8.2JC	ZENER	ROHM	
	D357	MTZ8.2JC	ZENER	ROHM	
	D401	1SS133	SILICON	ROHM	
	D402	1SS133	SILICON	ROHM	
	D403	1SS133	SILICON	ROHM	
	D404	1SS133	SILICON	ROHM	
	D405	1SS133	SILICON	ROHM	
	D406	1SS133	SILICON	ROHM	
	D407	1SS133	SILICON	ROHM	
	D408	1SS133	SILICON	ROHM	
	D409	1SS133	SILICON	ROHM	
	D410	1SS133	SILICON	ROHM	
	D411	1SS133	SILICON	ROHM	
	D412	1SS133	SILICON	ROHM	
	D413	1SS133	SILICON	ROHM	B
	D414	1SS133	SILICON	ROHM	A
	D415	1SS133	SILICON	ROHM	

Diodes

⚠	ITEM	PART NUMBER	DESCRIPTION		AREA
				MAKER	
	D416	1SS133	SILICON	ROHM	DBS
	D416	1SS133	SILICON	ROHM	F
	D416	1SS133	SILICON	ROHM	G
	D417	1SS133	SILICON	ROHM	G
	D418	1SS133	SILICON	ROHM	
	D419	1SS133	SILICON	ROHM	
	D421	RD6.2FB3	ZENER	NEC	
	D423	RD6.2FB3	ZENER	NEC	
	D451	MTZ5.6JC	ZENER	ROHM	
	D452	SLR-34DC3F	L.E.D.	ROHM	
	D453	SLR-34DC3F	L.E.D.	ROHM	
	D454	SLR-34DC3F	L.E.D.	ROHM	
	D455	SLR-34DC3F	L.E.D.	ROHM	
	D456	SLR-34VC3F	L.E.D.	ROHM	
	D465	1SS133	SILICON	ROHM	
	D466	1SS133	SILICON	ROHM	
	D501	MTZ6.8JC	ZENER	ROHM	
	D502	MTZ6.8JC	ZENER	ROHM	

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C301	QETB1HM-475	4.7MF	50V	ELECTRO	
	C302	QETB1HM-475	4.7MF	50V	ELECTRO	
	C303	QCS21HJ-101	100PF	50V	CERAMIC	
	C304	QCS21HJ-101	100PF	50V	CERAMIC	
	C305	QETB1AM-476	47MF	10V	ELECTRO	
	C306	QETB1AM-476	47MF	10V	ELECTRO	
	C307	QCS21HJ-101	100PF	50V	CERAMIC	
	C308	QCS21HJ-101	100PF	50V	CERAMIC	
	C309	QCY21HK-182	1800PF	50V	CERAMIC	
	C310	QCY21HK-182	1800PF	50V	CERAMIC	
	C311	QCY21HK-682	6800PF	50V	CERAMIC	
	C312	QCY21HK-682	6800PF	50V	CERAMIC	
	C313	QETB1HM-475	4.7MF	50V	ELECTRO	
	C314	QETB1HM-475	4.7MF	50V	ELECTRO	
	C315	QETB1EM-226	22MF	25V	ELECTRO	
	C316	QETB1EM-226	22MF	25V	ELECTRO	
	C321	QCF21HP-223	0.022MF	50V	CERAMIC	
	C322	QCF21HP-223	0.022MF	50V	CERAMIC	
	C325	QCS21HJ-331	330PF	50V	CERAMIC	E
	C325	QCS21HJ-331	330PF	50V	CERAMIC	G
	C326	QCS21HJ-331	330PF	50V	CERAMIC	E
	C326	QCS21HJ-331	330PF	50V	CERAMIC	G
	C327	QCS21HJ-331	330PF	50V	CERAMIC	E
	C327	QCS21HJ-331	330PF	50V	CERAMIC	G
	C328	QCS21HJ-331	330PF	50V	CERAMIC	E
	C328	QCS21HJ-331	330PF	50V	CERAMIC	G
	C329	QCS21HJ-331	330PF	50V	CERAMIC	E
	C329	QCS21HJ-331	330PF	50V	CERAMIC	G
	C330	QCS21HJ-331	330PF	50V	CERAMIC	E
	C330	QCS21HJ-331	330PF	50V	CERAMIC	G
	C331	QCS21HJ-331	330PF	50V	CERAMIC	E
	C331	QCS21HJ-331	330PF	50V	CERAMIC	G
	C332	QCS21HJ-331	330PF	50V	CERAMIC	E
	C332	QCS21HJ-331	330PF	50V	CERAMIC	G
	C333	QCS21HJ-331	330PF	50V	CERAMIC	E
	C333	QCS21HJ-331	330PF	50V	CERAMIC	G
	C334	QCS21HJ-331	330PF	50V	CERAMIC	E
	C334	QCS21HJ-331	330PF	50V	CERAMIC	G
	C335	QCS21HJ-331	330PF	50V	CERAMIC	E
	C335	QCS21HJ-331	330PF	50V	CERAMIC	G
	C336	QCS21HJ-331	330PF	50V	CERAMIC	E
	C336	QCS21HJ-331	330PF	50V	CERAMIC	G
	C351	QCY21HK-562	5600PF	50V	CERAMIC	
	C352	QFN81HK-473	0.047MF	50V	MYLAR	
	C353	QCY21HK-562	5600PF	50V	CERAMIC	
	C355	QETB1EM-476	47MF	25V	ELECTRO	
	C356	QETB1EM-476	47MF	25V	ELECTRO	
	C357	QETB1CM-476	47MF	16V	ELECTRO	
	C358	QETB1CM-476	47MF	16V	ELECTRO	
	C360	QEN51HM-474	0.47MF	50V	NON POLE	
	C401	QCBB1HK-101	100PF	50V	CERAMIC	
	C402	QCBB1HK-101	100PF	50V	CERAMIC	
	C403	QCVB1CM-103	0.01MF	16V	CERAMIC	
	C404	QETB1AM-107	100MF	10V	ELECTRO	
	C405	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C406	EEZ0502-479	47000MF	5.5V	ELECTRO	
	C407	QFV81HJ-104	0.1MF	50V	T.FILM	
	C408	QFN81HK-103	0.01MF	50V	MYLAR	
	C409	QETB1EM-227	220MF	25V	ELECTRO	
	C465	QEK51HM-225G	2.2MF	50V	ELECTRO	
	C501	QETB1HM-475	4.7MF	50V	ELECTRO	

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C502	QETB1HM-475	4.7MF	50V	ELECTRO	
	C507	QCS21HJ-101	100PF	50V	CERAMIC	
	C508	QCS21HJ-101	100PF	50V	CERAMIC	
	C509	QETB1CM-226	22MF	16V	ELECTRO	
	C510	QETB1CM-226	22MF	16V	ELECTRO	
	C511	QETB1EM-106	10MF	25V	ELECTRO	
	C512	QETB1EM-106	10MF	25V	ELECTRO	
	C513	QETB1CM-226	22MF	16V	ELECTRO	
	C514	QETB1CM-226	22MF	16V	ELECTRO	
	C515	QCS21HJ-100	10PF	50V	CERAMIC	
	C516	QCS21HJ-100	10PF	50V	CERAMIC	
	C517	QETB1EM-106	10MF	25V	ELECTRO	
	C518	QETB1EM-106	10MF	25V	ELECTRO	
	C521	QFN81HJ-223	0.022MF	50V	MYLAR	
	C522	QFN81HJ-223	0.022MF	50V	MYLAR	
	C523	QETB1HM-225	2.2MF	50V	ELECTRO	
	C524	QETB1HM-225	2.2MF	50V	ELECTRO	
	C525	QFN81HJ-822	8200PF	50V	MYLAR	
	C526	QFN81HJ-822	8200PF	50V	MYLAR	
	C527	QETB1HM-474	0.47MF	50V	ELECTRO	
	C528	QETB1HM-474	0.47MF	50V	ELECTRO	
	C529	QCY21HK-182	1800PF	50V	CERAMIC	
	C530	QCY21HK-182	1800PF	50V	CERAMIC	
	C531	QFN81HJ-124	0.12MF	50V	MYLAR	
	C532	QFN81HJ-124	0.12MF	50V	MYLAR	
	C533	QCS21HJ-471	470PF	50V	CERAMIC	
	C534	QCS21HJ-471	470PF	50V	CERAMIC	
	C535	QFN81HJ-333	0.033MF	50V	MYLAR	
	C536	QFN81HJ-333	0.033MF	50V	MYLAR	
	C537	QCS21HJ-101	100PF	50V	CERAMIC	
	C538	QCS21HJ-101	100PF	50V	CERAMIC	
	C539	QFN81HJ-822	8200PF	50V	MYLAR	
	C540	QFN81HJ-822	8200PF	50V	MYLAR	
	C551	QETB1HM-475	4.7MF	50V	ELECTRO	
	C552	QETB1HM-475	4.7MF	50V	ELECTRO	
	C555	QETB1HM-475	4.7MF	50V	ELECTRO	
	C556	QETB1HM-475	4.7MF	50V	ELECTRO	
	C591	QCS21HJ-471	470PF	50V	CERAMIC	

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
⚠	R001	QRC128K-275EM	2.7M	1/2W	COMPOSI	A
	R301	QRD167J-222	2.2K	1/6W	CARBON	
	R302	QRD167J-222	2.2K	1/6W	CARBON	
	R303	QRD167J-473	47K	1/6W	CARBON	
	R304	QRD167J-473	47K	1/6W	CARBON	
	R305	QRD167J-621	620	1/6W	CARBON	
	R306	QRD167J-621	620	1/6W	CARBON	
	R307	QRD167J-393	39K	1/6W	CARBON	
	R308	QRD167J-393	39K	1/6W	CARBON	
	R309	QRD167J-474	470K	1/6W	CARBON	
	R310	QRD167J-474	470K	1/6W	CARBON	
	R311	QRD167J-104	100K	1/6W	CARBON	
	R312	QRD167J-104	100K	1/6W	CARBON	
⚠	R313	QRD14CJ-271S	270	1/4W	UNF.CARBON	
⚠	R314	QRD14CJ-271S	270	1/4W	UNF.CARBON	
	R321	QRD167J-221	220	1/6W	CARBON	
	R322	QRD167J-221	220	1/6W	CARBON	
	R323	QRD167J-102	1K	1/6W	CARBON	
	R324	QRD167J-102	1K	1/6W	CARBON	
	R325	QRD167J-221	220	1/6W	CARBON	
	R326	QRD167J-221	220	1/6W	CARBON	
	R327	QRD167J-221	220	1/6W	CARBON	
	R328	QRD167J-221	220	1/6W	CARBON	
	R329	QRD167J-221	220	1/6W	CARBON	
	R330	QRD167J-221	220	1/6W	CARBON	
	R351	QRD167J-103	10K	1/6W	CARBON	
	R352	QRD167J-474	470K	1/6W	CARBON	
	R353	QRD167J-104	100K	1/6W	CARBON	
	R354	QRD167J-104	100K	1/6W	CARBON	
⚠	R355	QRD14CJ-680S	68	1/4W	UNF.CARBON	A
⚠	R355	QRZ0077-680	68	1/4W	FUSIBLE	B
⚠	R355	QRZ0077-680	68	1/4W	FUSIBLE	C
⚠	R355	QRZ0077-680	68	1/4W	FUSIBLE	DBS
⚠	R355	QRZ0077-680	68	1/4W	FUSIBLE	E
⚠	R355	QRZ0077-680	68	1/4W	FUSIBLE	F
⚠	R355	QRZ0077-680	68	1/4W	FUSIBLE	G
⚠	R356	QRD14CJ-680S	68	1/4W	UNF.CARBON	A
⚠	R356	QRZ0077-680	68	1/4W	FUSIBLE	B
⚠	R356	QRZ0077-680	68	1/4W	FUSIBLE	C
⚠	R356	QRZ0077-680	68	1/4W	FUSIBLE	DBS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
⚠	R356	QRZ0077-680	68	1/4W	FUSIBLE	E
⚠	R356	QRZ0077-680	68	1/4W	FUSIBLE	F
⚠	R356	QRZ0077-680	68	1/4W	FUSIBLE	G
⚠	R357	QRD14CJ-821S	820	1/4W	UNF.CARBON	
⚠	R358	QRD14CJ-821S	820	1/4W	UNF.CARBON	
	R359	QRD167J-101	100	1/6W	CARBON	
	R360	QRD167J-822	8.2K	1/6W	CARBON	
	R362	QRD167J-103	10K	1/6W	CARBON	
	R363	QRD167J-105	1M	1/6W	CARBON	
	R364	QRD167J-273	27K	1/6W	CARBON	
	R365	QRD167J-103	10K	1/6W	CARBON	
	R366	QRD167J-103	10K	1/6W	CARBON	
	R367	QRD167J-332	3.3K	1/6W	CARBON	
	R368	QRD167J-332	3.3K	1/6W	CARBON	
	R369	QRD167J-103	10K	1/6W	CARBON	
	R370	QRD167J-103	10K	1/6W	CARBON	
	R401	QRD167J-105	1M	1/6W	CARBON	
	R402	QRD167J-152	1.5K	1/6W	CARBON	
	R403	QRD167J-331	330	1/6W	CARBON	
	R404	QRD167J-472	4.7K	1/6W	CARBON	
	R405	QRD167J-224	220K	1/6W	CARBON	
	R406	QRD167J-103	10K	1/6W	CARBON	
	R407	QRD167J-123	12K	1/6W	CARBON	
	R408	QRD167J-563	56K	1/6W	CARBON	
	R409	QRD167J-224	220K	1/6W	CARBON	
	R410	QRD167J-224	220K	1/6W	CARBON	
	R411	QRD167J-104	100K	1/6W	CARBON	
	R412	QRD167J-472	4.7K	1/6W	CARBON	
	R413	QRD167J-472	4.7K	1/6W	CARBON	
	R414	QRD167J-472	4.7K	1/6W	CARBON	
	R415	QRD167J-472	4.7K	1/6W	CARBON	
	R452	QRD167J-222	2.2K	1/6W	CARBON	
	R453	QRD167J-104	100K	1/6W	CARBON	
	R454	QRD167J-222	2.2K	1/6W	CARBON	
	R455	QRD167J-222	2.2K	1/6W	CARBON	
	R456	QRD167J-222	2.2K	1/6W	CARBON	
	R457	QRD167J-222	2.2K	1/6W	CARBON	
	R458	QRD167J-222	2.2K	1/6W	CARBON	
	R459	QRD167J-222	2.2K	1/6W	CARBON	
	R460	QRD167J-222	2.2K	1/6W	CARBON	
	R461	QRD167J-222	2.2K	1/6W	CARBON	
	R462	QRD167J-222	2.2K	1/6W	CARBON	
	R463	QRD167J-222	2.2K	1/6W	CARBON	
	R465	QRD167J-102	1K	1/6W	CARBON	
	R466	QRD167J-103	10K	1/6W	CARBON	
	R501	QRD167J-163	16K	1/6W	CARBON	
	R502	QRD167J-163	16K	1/6W	CARBON	
	R503	QRD167J-124	120K	1/6W	CARBON	
	R504	QRD167J-124	120K	1/6W	CARBON	
	R505	QRD167J-154	150K	1/6W	CARBON	
	R506	QRD167J-154	150K	1/6W	CARBON	
	R507	QRD167J-102	1K	1/6W	CARBON	
	R508	QRD167J-102	1K	1/6W	CARBON	
	R511	QRD167J-472	4.7K	1/6W	CARBON	
	R512	QRD167J-472	4.7K	1/6W	CARBON	
	R513	QRD167J-102	1K	1/6W	CARBON	
	R514	QRD167J-102	1K	1/6W	CARBON	
	R515	QRD167J-105	1M	1/6W	CARBON	
	R516	QRD167J-105	1M	1/6W	CARBON	
	R517	QRD167J-183	18K	1/6W	CARBON	
	R518	QRD167J-183	18K	1/6W	CARBON	
	R519	QRD167J-223	22K	1/6W	CARBON	
	R520	QRD167J-223	22K	1/6W	CARBON	
	R523	QRD167J-104	100K	1/6W	CARBON	
	R524	QRD167J-104	100K	1/6W	CARBON	
⚠	R531	QRD14CJ-680S	68	1/4W	UNF.CARBON	A
⚠	R531	QRZ0077-680	68	1/4W	FUSIBLE	B
⚠	R531	QRZ0077-680	68	1/4W	FUSIBLE	C
⚠	R531	QRZ0077-680	68	1/4W	FUSIBLE	DBS
⚠	R531	QRZ0077-680	68	1/4W	FUSIBLE	E
⚠	R531	QRZ0077-680	68	1/4W	FUSIBLE	F
⚠	R531	QRZ0077-680	68	1/4W	FUSIBLE	G
⚠	R532	QRD14CJ-680S	68	1/4W	UNF.CARBON	A
⚠	R532	QRZ0077-680	68	1/4W	FUSIBLE	B
⚠	R532	QRZ0077-680	68	1/4W	FUSIBLE	C
⚠	R532	QRZ0077-680	68	1/4W	FUSIBLE	DBS
⚠	R532	QRZ0077-680	68	1/4W	FUSIBLE	E
⚠	R532	QRZ0077-680	68	1/4W	FUSIBLE	F
⚠	R532	QRZ0077-680	68	1/4W	FUSIBLE	G
⚠	R533	QRD14CJ-221S	220	1/4W	UNF.CARBON	
⚠	R534	QRD14CJ-271S	270	1/4W	UNF.CARBON	

⚠ : SAFETY PARTS

Others

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		EMG7331-001	FUSE CLIP	A
		EMG7331-001	FUSE CLIP	C
		EMG7331-001	FUSE CLIP	DBS
		EMG7331-001	FUSE CLIP	E
		EMG7331-001	FUSE CLIP	F
		EMG7331-001	FUSE CLIP	G
		E12191-002	CIRCUIT BOARD	A
		E12191-002	CIRCUIT BOARD	B
		E12191-002	CIRCUIT BOARD	C
		E12191-002	CIRCUIT BOARD	E
		E12191-002	CIRCUIT BOARD	F
		E12191-002	CIRCUIT BOARD	G
		E12191-002BS	CIRCUIT BOARD	DBS
		E3400-439	SPACER	
		E65508-002	TAB	
		E67132-T2R0	FUSE LABEL	C
		E67132-T2R0	FUSE LABEL	DBS
		E67132-T2R0	FUSE LABEL	E
		E67132-T2R0	FUSE LABEL	F
		E67132-T2R0	FUSE LABEL	G
		E67764-202	WRAPPING TERMINAL	A
		E67764-202	WRAPPING TERMINAL	C
		E67764-202	WRAPPING TERMINAL	DBS
		E67764-202	WRAPPING TERMINAL	E
		E67764-202	WRAPPING TERMINAL	F
		E67764-202	WRAPPING TERMINAL	G
		E67764-203	WRAPPING TERMINAL	B
		E70859-001	EARTH PLATE	A
		E75811-001	HOLDER	
⚠		QMC0437-002	AC OUTLET	B
⚠		QMC0440-001	AC OUTLET	A
	J321	EMN00TV-604A	6P PIN JACK	
	J322	EMN00TV-604A	6P PIN JACK	
	L351	EQL4004-220	INDUCTOR	
	P301	VMC0107-003	CONNECTOR	
	P302	VMC0107-007	SOCKET	
	P303	VMC0107-007	SOCKET	
	P304	VMC0107-008	CONNECTOR	
	P403	VMC0107-005	CONNECTOR	
	S401	ESP0001-018	TACT SWITCH	
	S402	ESP0001-018	TACT SWITCH	
	S403	ESP0001-018	TACT SWITCH	
	S404	ESP0001-018	TACT SWITCH	
	S405	ESP0001-018	TACT SWITCH	
	S406	ESP0001-018	TACT SWITCH	

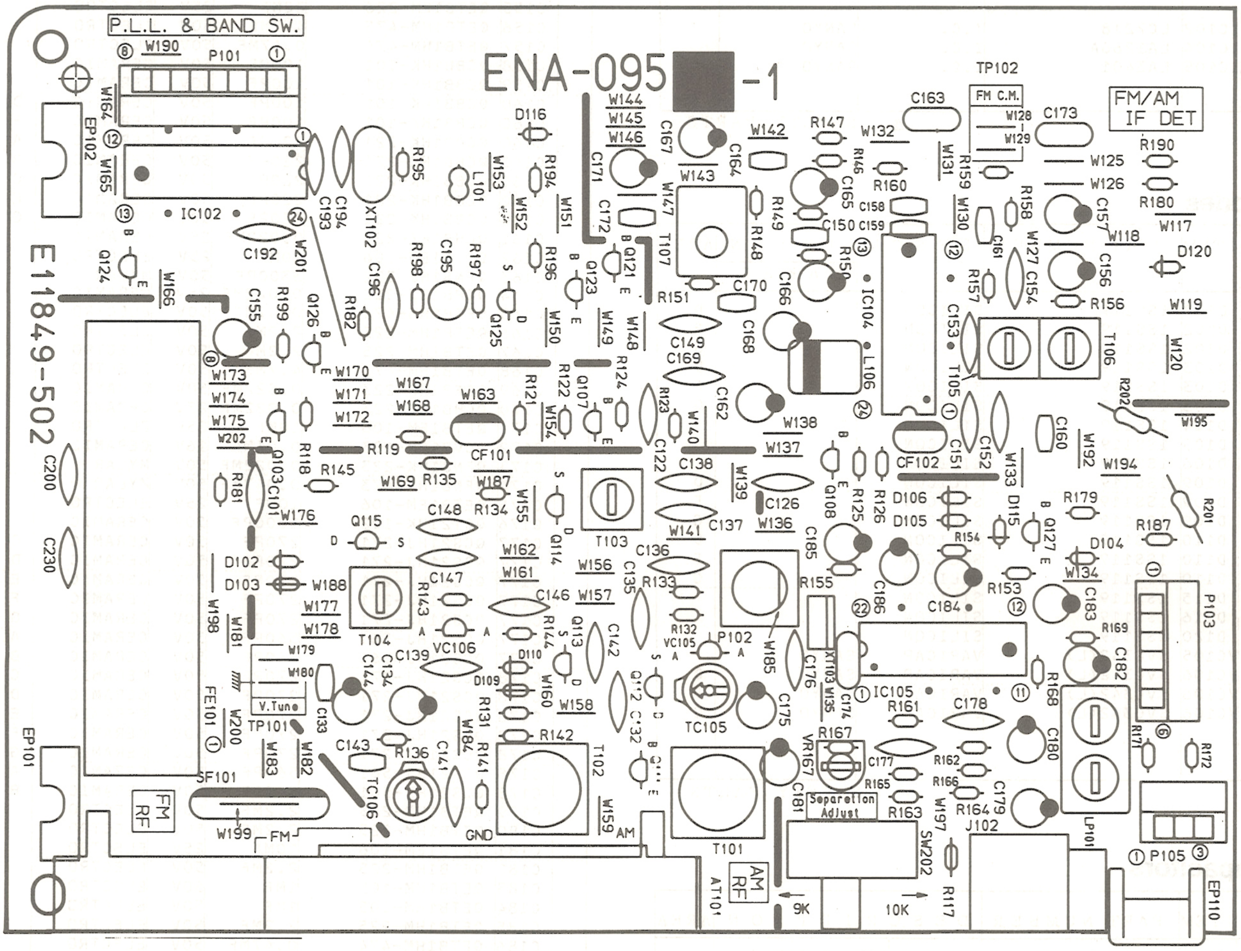
Others

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	S407	ESP0001-018	TACT SWITCH	
	S408	ESP0001-018	TACT SWITCH	
	S409	ESP0001-018	TACT SWITCH	
	S410	ESP0001-018	TACT SWITCH	
	S411	ESP0001-018	TACT SWITCH	
	S412	ESP0001-018	TACT SWITCH	
	S413	ESP0001-018	TACT SWITCH	
	S414	ESP0001-018	TACT SWITCH	
	S415	ESP0001-018	TACT SWITCH	
	S416	ESP0001-018	TACT SWITCH	
	S417	ESP0001-018	TACT SWITCH	
	S418	ESP0001-018	TACT SWITCH	
	S419	ESP0001-018	TACT SWITCH	
	S451	ESP0001-018	TACT SWITCH	
	S452	ESP0001-018	TACT SWITCH	
	S453	ESP0001-018	TACT SWITCH	
	S454	ESP0001-018	TACT SWITCH	
	FL401	ELU0001-085	FL TUBE	
	FW101	EWR38B-25LST	FLAT WIRE	
	FW103	EWR36B-25LST	FLAT WIRE	
	FW105	EWR33B-30LST	FLAT WIRE	B
	FW302	EWR37B-25LST	FLAT WIRE	
	FW402	EWR36B-20SST	FLAT WIRE	
	FW403	EWR35B-08LST	FLAT WIRE	
	FW802	EWR35B-25LST	FLAT WIRE	
	FW803	EWR36B-30LST	FLAT WIRE	
	XT401	ECX0001-000KS	RESONATOR	

⚠ : SAFETY PARTS

■ENA-095☐ Tuner PC Board Ass'y

Note: ENA-095☐ varies according to the areas employed . See note (1) when placing an order.


P.L.L. & BAND SW.
ENA-095■-1
E11849-502
FM/AM IF DET
FM C.M.
TP102
P101
IC102
IC104
IC105
XT102
XT103
CF101
CF102
T101
T102
T103
T104
T105
T106
T107
L101
L106
VC105
VC106
TC105
TC106
VR167
Separation Adjust
V.Tune
TP101
FE101
SF101
FM RF
AM RF
AT101
FM
GND
AM
SW202
9K
10K
J102
LP101
P102
P103
P105
EP101
EP102
EP110
C200
C230

Note (1)

PC Board Ass'y	Designated Areas
ENA-095 A	the U.S.A. , Canada
ENA-095 B	Other Countries
ENA-095 C	Australia
ENA-095 D	Continental Europe (with LW)
ENA-095 E	West Germany
ENA-095 F	the U.K. (with LW)
ENA-095 G	Italy (with LW)

Transistors

⚠	ITEM	PART NUMBER	DESCRIPTION		AREA
				MAKER	
	Q103	2SC461(B,C)	SILICON	HITACHI	
	Q107	2SC535(B,C)	SILICON	HITACHI	
	Q108	2SC461(B,C)	SILICON	HITACHI	
	Q111	2SD1302(S,T)	SILICON	MATSUSHITA	D
	Q111	2SD1302(S,T)	SILICON	MATSUSHITA	F

Transistors

⚠	ITEM	PART NUMBER	DESCRIPTION		AREA
				MAKER	
	Q111	2SD1302(S,T)	SILICON	MATSUSHITA	G
	Q112	2SK301(Q,R)	F.E.T	MATSUSHITA	
	Q113	2SK301(Q,R)	F.E.T	MATSUSHITA	D
	Q113	2SK301(Q,R)	F.E.T	MATSUSHITA	F
	Q113	2SK301(Q,R)	F.E.T	MATSUSHITA	G
	Q114	2SK301(P,Q)	F.E.T	MATSUSHITA	D
	Q114	2SK301(P,Q)	F.E.T	MATSUSHITA	F
	Q114	2SK301(P,Q)	F.E.T	MATSUSHITA	G
	Q115	2SK301(P,Q)	F.E.T	MATSUSHITA	D
	Q115	2SK301(P,Q)	F.E.T	MATSUSHITA	F
	Q115	2SK301(P,Q)	F.E.T	MATSUSHITA	G
	Q121	AN1A4P	SILICON	NEC	D
	Q121	AN1A4P	SILICON	NEC	F
	Q121	AN1A4P	SILICON	NEC	G
	Q123	AN1A4P	SILICON	NEC	
	Q124	AN1A4P	SILICON	NEC	
	Q125	2SK301(Q2)	F.E.T	MATSUSHITA	
	Q126	2SC458(D)	SILICON	HITACHI	
	Q127	AA1L4M	SI.TRANSIS	NEC	

⚠ : SAFETY PARTS

I. C. s

⚠	ITEM	PART NUMBER	DESCRIPTION	MAKER	AREA
	IC102	LC7218	I.C.	SANYO	
	IC104	LA1266A	I.C.	SANYO	
	IC105	LA3401	I.C.	SANYO	

⚠ : SAFETY PARTS

Diodes

⚠	ITEM	PART NUMBER	DESCRIPTION	MAKER	AREA
	D102	1SS119	SILICON		D
	D102	1SS119	SILICON		F
	D102	1SS119	SILICON		G
	D103	1SS119	SILICON		D
	D103	1SS119	SILICON		F
	D103	1SS119	SILICON		G
	D104	1SS119	SILICON		
	D105	1SS119	SILICON		
	D106	1SS119	SILICON		
	D109	1SS119	SILICON		D
	D109	1SS119	SILICON		F
	D109	1SS119	SILICON		G
	D110	1SS119	SILICON		D
	D110	1SS119	SILICON		F
	D110	1SS119	SILICON		G
	D115	1SS119	SILICON		
	D116	1SS119	SILICON		
	D120	1SS119	SILICON		
	VC105	SVC342(L)	VARICAP	SANYO	
	VC106	SVC342(L)	VARICAP	SANYO	D
	VC106	SVC342(L)	VARICAP	SANYO	F
	VC106	SVC342(L)	VARICAP	SANYO	G

⚠ : SAFETY PARTS

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C101	QCF21HP-223	0.022MF	50V	CERAMIC	
	C122	QCF21HP-223	0.022MF	50V	CERAMIC	
	C126	QCF21HP-223	0.022MF	50V	CERAMIC	
	C132	QCS21HJ-561	560PF	50V	CERAMIC	
	C133	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C134	QETB1EM-106	10MF	25V	ELECTRO	
	C135	QCC21EM-223	0.022MF	25V	CERAMIC	
	C136	QCT26CH-180	18PF	50V	CERAMIC	
	C137	QCT26CH-221	220PF	50V	CERAMIC	
	C138	QCT26CH-241	240PF	50V	CERAMIC	
	C139	QCC21EM-223	0.022MF	25V	CERAMIC	D
	C139	QCC21EM-223	0.022MF	25V	CERAMIC	F
	C139	QCC21EM-223	0.022MF	25V	CERAMIC	G
	C141	QCS21HJ-270	27PF	50V	CERAMIC	D
	C141	QCS21HJ-270	27PF	50V	CERAMIC	F
	C141	QCS21HJ-270	27PF	50V	CERAMIC	G
	C142	QCY21HK-272	2700PF	50V	CERAMIC	D
	C142	QCY21HK-272	2700PF	50V	CERAMIC	F
	C142	QCY21HK-272	2700PF	50V	CERAMIC	G
	C143	QCHB1EZ-223	0.022MF	25V	CERAMIC	D
	C143	QCHB1EZ-223	0.022MF	25V	CERAMIC	F
	C143	QCHB1EZ-223	0.022MF	25V	CERAMIC	G
	C144	QETB1EM-106	10MF	25V	ELECTRO	D
	C144	QETB1EM-106	10MF	25V	ELECTRO	F
	C144	QETB1EM-106	10MF	25V	ELECTRO	G
	C146	QCT26CH-680	68PF	50V	CERAMIC	D
	C146	QCT26CH-680	68PF	50V	CERAMIC	F
	C146	QCT26CH-680	68PF	50V	CERAMIC	G
	C147	QCT26CH-220	22PF	50V	CERAMIC	D
	C147	QCT26CH-220	22PF	50V	CERAMIC	F
	C147	QCT26CH-220	22PF	50V	CERAMIC	G
	C148	QCT26CH-121	120PF	50V	CERAMIC	D
	C148	QCT26CH-121	120PF	50V	CERAMIC	F
	C148	QCT26CH-121	120PF	50V	CERAMIC	G
	C149	QCF21HP-223	0.022MF	50V	CERAMIC	
	C150	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C151	QCF21HP-223	0.022MF	50V	CERAMIC	
	C152	QCF21HP-223	0.022MF	50V	CERAMIC	
	C153	QCC21EM-223	0.022MF	25V	CERAMIC	
	C154	QCF21HP-223	0.022MF	50V	CERAMIC	

Capacitors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	C155	QETB1EM-226	22MF	25V	ELECTRO	
	C156	QETB1HM-475	4.7MF	50V	ELECTRO	
	C157	QETB1HM-474	0.47MF	50V	ELECTRO	
	C158	QCBB1HK-101	100PF	50V	CERAMIC	
	C159	QCBB1HK-101	100PF	50V	CERAMIC	
	C160	QCBB1HK-101	100PF	50V	CERAMIC	D
	C160	QCBB1HK-101	100PF	50V	CERAMIC	F
	C160	QCBB1HK-221	220PF	50V	CERAMIC	A
	C160	QCBB1HK-221	220PF	50V	CERAMIC	B
	C160	QCBB1HK-221	220PF	50V	CERAMIC	C
	C160	QCBB1HK-221	220PF	50V	CERAMIC	E
	C160	QCBB1HK-221	220PF	50V	CERAMIC	G
	C161	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C162	QETB1EM-106	10MF	25V	ELECTRO	
	C163	QFN81HJ-332	3300PF	50V	MYLAR	
	C164	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C165	QETB1HM-474	0.47MF	50V	ELECTRO	
	C166	QETB1HM-225	2.2MF	50V	ELECTRO	
	C167	QETB1HM-225	2.2MF	50V	ELECTRO	
	C168	QETB1HM-475	4.7MF	50V	ELECTRO	
	C169	QCF21HP-223	0.022MF	50V	CERAMIC	
	C170	QCHB1EZ-223	0.022MF	25V	CERAMIC	
	C171	QETB1EM-106	10MF	25V	ELECTRO	
	C172	QCVB1CM-103	0.01MF	16V	CERAMIC	
	C173	QFN81HK-223	0.022MF	50V	MYLAR	
	C174	QFN81HK-473	0.047MF	50V	MYLAR	
	C175	QETB1EM-106	10MF	25V	ELECTRO	
	C176	QCY21HK-102	1000PF	50V	CERAMIC	
	C177	QCS21HJ-271	270PF	50V	CERAMIC	C
	C177	QCS21HJ-271	270PF	50V	CERAMIC	D
	C177	QCS21HJ-271	270PF	50V	CERAMIC	E
	C177	QCS21HJ-271	270PF	50V	CERAMIC	F
	C177	QCS21HJ-271	270PF	50V	CERAMIC	G
	C177	QCS21HJ-561	560PF	50V	CERAMIC	A
	C177	QCS21HJ-561	560PF	50V	CERAMIC	B
	C178	QCS21HJ-271	270PF	50V	CERAMIC	C
	C178	QCS21HJ-271	270PF	50V	CERAMIC	D
	C178	QCS21HJ-271	270PF	50V	CERAMIC	E
	C178	QCS21HJ-271	270PF	50V	CERAMIC	F
	C178	QCS21HJ-271	270PF	50V	CERAMIC	G
	C178	QCS21HJ-561	560PF	50V	CERAMIC	A
	C178	QCS21HJ-561	560PF	50V	CERAMIC	B
	C179	QETB1HM-225	2.2MF	50V	ELECTRO	
	C180	QETB1HM-225	2.2MF	50V	ELECTRO	
	C181	QETB1EM-106	10MF	25V	ELECTRO	
	C182	QETB1HM-225	2.2MF	50V	ELECTRO	
	C183	QETB1HM-105	1MF	50V	ELECTRO	
	C184	QETB1HM-105	1MF	50V	ELECTRO	
	C185	QETB1HM-225	2.2MF	50V	ELECTRO	
	C186	QETB1HM-474	0.47MF	50V	ELECTRO	
	C192	QCC21EM-473	0.047MF	25V	CERAMIC	
	C193	QCS21HJ-180	18PF	50V	CERAMIC	
	C194	QCS21HJ-180	18PF	50V	CERAMIC	
	C195	QEN51HM-474	0.47MF	50V	NON POLE	
	C196	QCY21HK-102	1000PF	50V	CERAMIC	
	C230	QCF21HP-103	0.01MF	50V	CERAMIC	
	TC105	ENZ1003-006			TRIMMER	
	TC106	ENZ1003-006			TRIMMER	D
	TC106	ENZ1003-006			TRIMMER	F
	TC106	ENZ1003-006			TRIMMER	G

⚠ : SAFETY PARTS

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R118	QRD167J-332	3.3K	1/6W	CARBON	
	R119	QRD167J-221	220	1/6W	CARBON	
	R121	QRD167J-391	390	1/6W	CARBON	
	R122	QRD167J-272	2.7K	1/6W	CARBON	
	R123	QRD167J-102	1K	1/6W	CARBON	
	R124	QRD167J-681	680	1/6W	CARBON	
	R125	QRD167J-332	3.3K	1/6W	CARBON	
	R126	QRD167J-221	220	1/6W	CARBON	
	R131	QRD167J-331	330	1/6W	CARBON	
	R132	QRD167J-103	10K	1/6W	CARBON	
	R133	QRD167J-473	47K	1/6W	CARBON	
	R134	QRD167J-103	10K	1/6W	CARBON	D
	R134	QRD167J-103	10K	1/6W	CARBON	F
	R134	QRD167J-103	10K	1/6W	CARBON	G
	R135	QRD167J-470	47	1/6W	CARBON	
	R136	QRD167J-103	10K	1/6W	CARBON	
	R141	QRD167J-472	4.7K	1/6W	CARBON	D
	R141	QRD167J-472	4.7K	1/6W	CARBON	F
	R141	QRD167J-472	4.7K	1/6W	CARBON	G
	R142	QRD167J-331	330	1/6W	CARBON	D

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R142	QRD167J-331	330	1/6W	CARBON	F
	R142	QRD167J-331	330	1/6W	CARBON	G
	R143	QRD167J-103	10K	1/6W	CARBON	D
	R143	QRD167J-103	10K	1/6W	CARBON	F
	R143	QRD167J-103	10K	1/6W	CARBON	G
	R144	QRD167J-473	47K	1/6W	CARBON	D
	R144	QRD167J-473	47K	1/6W	CARBON	F
	R144	QRD167J-473	47K	1/6W	CARBON	G
	R145	QRD167J-103	10K	1/6W	CARBON	D
	R145	QRD167J-103	10K	1/6W	CARBON	F
	R145	QRD167J-103	10K	1/6W	CARBON	G
	R146	QRD167J-560	56	1/6W	CARBON	
	R147	QRD167J-103	10K	1/6W	CARBON	
	R148	QRD167J-103	10K	1/6W	CARBON	
	R149	QRD167J-223	22K	1/6W	CARBON	
	R150	QRD167J-103	10K	1/6W	CARBON	
	R151	QRD167J-224	220K	1/6W	CARBON	
	R153	QRD167J-103	10K	1/6W	CARBON	
	R154	QRD167J-103	10K	1/6W	CARBON	
	R155	QRD167J-562	5.6K	1/6W	CARBON	
	R156	QRD167J-822	8.2K	1/6W	CARBON	
	R157	QRD167J-103	10K	1/6W	CARBON	
	R158	QRD167J-183	18K	1/6W	CARBON	A
	R158	QRD167J-333	33K	1/6W	CARBON	B
	R158	QRD167J-333	33K	1/6W	CARBON	C
	R158	QRD167J-333	33K	1/6W	CARBON	D
	R158	QRD167J-333	33K	1/6W	CARBON	E
	R158	QRD167J-333	33K	1/6W	CARBON	F
	R158	QRD167J-333	33K	1/6W	CARBON	G
	R159	QRD167J-561	560	1/6W	CARBON	
	R160	QRD167J-123	12K	1/6W	CARBON	A
	R160	QRD167J-123	12K	1/6W	CARBON	B
	R160	QRD167J-273	27K	1/6W	CARBON	C
	R160	QRD167J-273	27K	1/6W	CARBON	D
	R160	QRD167J-273	27K	1/6W	CARBON	E
	R160	QRD167J-273	27K	1/6W	CARBON	F
	R160	QRD167J-273	27K	1/6W	CARBON	G
	R161	QRD167J-124	120K	1/6W	CARBON	A
	R161	QRD167J-124	120K	1/6W	CARBON	B
	R161	QRD167J-184	180K	1/6W	CARBON	C
	R161	QRD167J-184	180K	1/6W	CARBON	D
	R161	QRD167J-184	180K	1/6W	CARBON	E
	R161	QRD167J-184	180K	1/6W	CARBON	F
	R161	QRD167J-184	180K	1/6W	CARBON	G
	R162	QRD167J-124	120K	1/6W	CARBON	A
	R162	QRD167J-124	120K	1/6W	CARBON	B
	R162	QRD167J-184	180K	1/6W	CARBON	C
	R162	QRD167J-184	180K	1/6W	CARBON	D
	R162	QRD167J-184	180K	1/6W	CARBON	E
	R162	QRD167J-184	180K	1/6W	CARBON	F
	R162	QRD167J-184	180K	1/6W	CARBON	G
	R163	QRD167J-332	3.3K	1/6W	CARBON	
	R164	QRD167J-332	3.3K	1/6W	CARBON	
	R165	QRD167J-184	180K	1/6W	CARBON	A
	R165	QRD167J-184	180K	1/6W	CARBON	B
	R165	QRD167J-274	270K	1/6W	CARBON	C
	R165	QRD167J-274	270K	1/6W	CARBON	D
	R165	QRD167J-274	270K	1/6W	CARBON	E
	R165	QRD167J-274	270K	1/6W	CARBON	F
	R165	QRD167J-274	270K	1/6W	CARBON	G
	R166	QRD167J-184	180K	1/6W	CARBON	A
	R166	QRD167J-184	180K	1/6W	CARBON	B
	R166	QRD167J-274	270K	1/6W	CARBON	C
	R166	QRD167J-274	270K	1/6W	CARBON	D
	R166	QRD167J-274	270K	1/6W	CARBON	E
	R166	QRD167J-274	270K	1/6W	CARBON	F
	R166	QRD167J-274	270K	1/6W	CARBON	G
	R167	QRD167J-393	39K	1/6W	CARBON	A
	R167	QRD167J-393	39K	1/6W	CARBON	B
	R168	QRD167J-103	10K	1/6W	CARBON	
	R169	QRD167J-103	10K	1/6W	CARBON	
	R171	QRD167J-682	6.8K	1/6W	CARBON	
	R172	QRD167J-682	6.8K	1/6W	CARBON	
	R179	QRD167J-562	5.6K	1/6W	CARBON	
	R180	QRD167J-472	4.7K	1/6W	CARBON	
	R181	QRD167J-222	2.2K	1/6W	CARBON	
	R182	QRD167J-181	180	1/6W	CARBON	
	R190	QRD167J-472	4.7K	1/6W	CARBON	
	R194	QRD167J-472	4.7K	1/6W	CARBON	
	R195	QRD167J-473	47K	1/6W	CARBON	
	R196	QRD167J-103	10K	1/6W	CARBON	A
	R196	QRD167J-103	10K	1/6W	CARBON	B
	R196	QRD167J-103	10K	1/6W	CARBON	C
	R196	QRD167J-222	2.2K	1/6W	CARBON	D
	R196	QRD167J-222	2.2K	1/6W	CARBON	E
	R196	QRD167J-222	2.2K	1/6W	CARBON	F
	R196	QRD167J-222	2.2K	1/6W	CARBON	G
	R197	QRD167J-222	2.2K	1/6W	CARBON	
	R198	QRD167J-332	3.3K	1/6W	CARBON	A
	R198	QRD167J-332	3.3K	1/6W	CARBON	B

Resistors

⚠	ITEM	PART NUMBER	DESCRIPTION			AREA
	R198	QRD167J-332	3.3K	1/6W	CARBON	C
	R198	QRD167J-822	8.2K	1/6W	CARBON	D
	R198	QRD167J-822	8.2K	1/6W	CARBON	E
	R198	QRD167J-822	8.2K	1/6W	CARBON	F
	R198	QRD167J-822	8.2K	1/6W	CARBON	G
	R199	QRD167J-472	4.7K	1/6W	CARBON	
⚠	R201	QRD145J-680S	68	1/4W	UNF.CARBON	A
⚠	R201	QRZ0062-680	68	1/4W	FUSIBLE	B
⚠	R201	QRZ0062-680	68	1/4W	FUSIBLE	C
⚠	R201	QRZ0062-680	68	1/4W	FUSIBLE	D
⚠	R201	QRZ0062-680	68	1/4W	FUSIBLE	E
⚠	R201	QRZ0062-680	68	1/4W	FUSIBLE	F
⚠	R201	QRZ0062-680	68	1/4W	FUSIBLE	G
⚠	R202	QRD145J-470S	47	1/4W	UNF.CARBON	A
⚠	R202	QRZ0062-220	22	1/4W	FUSIBLE	E
⚠	R202	QRZ0062-220	22	1/4W	FUSIBLE	G
⚠	R202	QRZ0062-470	47	1/4W	FUSIBLE	B
⚠	R202	QRZ0062-470	47	1/4W	FUSIBLE	C
⚠	R202	QRZ0062-470	47	1/4W	FUSIBLE	D
⚠	R202	QRZ0062-470	47	1/4W	FUSIBLE	F
	VR167	QVPE601-104	100K	0.15W	VARIABLE	C
	VR167	QVPE601-104	100K	0.15W	VARIABLE	D
	VR167	QVPE601-104	100K	0.15W	VARIABLE	E
	VR167	QVPE601-104	100K	0.15W	VARIABLE	F
	VR167	QVPE601-104	100K	0.15W	VARIABLE	G

⚠ : SAFETY PARTS

Others

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
		E11849-502(S)	CIRCUIT BOARD	
	L101	EQL4004-1R0	INDUCTOR	
	L106	EQL3001-102K	INDUCTOR	
	P101	EMV7112-008	CONNECTOR	
	P103	EMV7112-006	CONNECTOR	
	P105	EMV7112-003	CONNECTOR	B
	T101	EQR1111-014	AM RF COIL	
	T102	EQR1111-005	AM RF COIL	D
	T102	EQR1111-005	AM RF COIL	F
	T102	EQR1111-005	AM RF COIL	G
	T103	EQR1207-015	MW OSC COIL	
	T104	EQR1307-009	LW OSC COIL	D
	T104	EQR1307-009	LW OSC COIL	F
	T104	EQR1307-009	LW OSC COIL	G
	T105	EQT2140-012	I.F. TRANSFORMER	
	T106	EQT2140-013	I.F. TRANSFORMER	
	T107	ECB1560-006	CERAMIC FILTER	
	AT101	EMB41YV-301K	ANTENNA TERMINAL	D
	AT101	EMB41YV-301K	ANTENNA TERMINAL	E
	AT101	EMB41YV-301K	ANTENNA TERMINAL	G
	AT101	EMB41YV-401K	ANTENNA TERMINAL	A
	AT101	EMB41YV-401K	ANTENNA TERMINAL	B
	AT101	EMB41YV-401K	ANTENNA TERMINAL	C
	AT101	EMB41YV-401K	ANTENNA TERMINAL	F
	CF101	ECB2118-001R	CERAMIC FILTER	D
	CF101	ECB2118-001R	CERAMIC FILTER	E
	CF101	ECB2118-001R	CERAMIC FILTER	F
	CF101	ECB2118-001R	CERAMIC FILTER	G
	CF101	ECB2123-001R	CERAMIC FILTER	C
	CF101	ECB2123-006R	CERAMIC FILTER	A
	CF101	ECB2123-006R	CERAMIC FILTER	B
	CF102	ECB2118-001R	CERAMIC FILTER	D
	CF102	ECB2118-001R	CERAMIC FILTER	E
	CF102	ECB2118-001R	CERAMIC FILTER	F
	CF102	ECB2118-001R	CERAMIC FILTER	G
	CF102	ECB2123-001R	CERAMIC FILTER	C
	CF102	ECB2123-006R	CERAMIC FILTER	A
	CF102	ECB2123-006R	CERAMIC FILTER	B
	EP101	E70859-001	EARTH PLATE	
	EP102	E70859-001	EARTH PLATE	
	EP110	E70225-001	EARTH PLATE	
	FE101	EAF2203-001	FRONT END	A
	FE101	EAF2203-001	FRONT END	B
	FE101	EAF2203-001	FRONT END	C
	FE101	EAF2203-001	FRONT END	D
	FE101	EAF2203-001	FRONT END	F
	FE101	EAF2203-002	FRONT END	E
	FE101	EAF2203-002	FRONT END	G
	LP101	EQF0101-002	LOW PASS FILTER	
	LP102	EQF0102-001	LOW PASS FILTER	E
	LP102	EQF0102-001	LOW PASS FILTER	G
	SF101	EQF0201-006	BAND PASS FILTER	E
	SF101	EQF0201-006	BAND PASS FILTER	G
	SW202	QSS1201-039	SLIDE SWITCH	B
	XT102	ECX0007-200KC	RESONATOR	

Others

⚠	ITEM	PART NUMBER	DESCRIPTION	AREA
	XT103	ECX0000-456KR	RESONATOR	

⚠ : SAFETY PARTS

Accessories List

⚠	Part Number	Part Name	Q'ty	Description	Areas
	E30580-1578A	Instruction Book	1		J,C
	E30580-1586A	Instruction Book	1		Except J,C,LBS
	E30580-1586ABS	Instruction Book	1		LBS
	BT20048C	Warranty Card	1		J
	BT20025K	Warranty Card	1		C
	BT20029C	Warranty Card	1	for Australia	A
	BT20119	Warranty Card	1	for New Zealand	A
	BT20117	Warranty Card	1		G
	BT20060	Warranty Card	1		LBS
	BT20044F	Safety Instruction Sheet	1		J
	BT20108	Service Information	1		J
	BT20071A	Service Center List	1		C
	BT20066A	EEC Agency	1		LBS
	E43486-340A	Safety Sheet	1		LBS
	QZL1008-001	FTZ Information Sheet	1		G
	EQL4001-015	AM Loop Antenna	1		
	EWP502-001	Built in Antenna	1		
	E67007-001	Wire Antenna	1		G
	EMZ2001-011	Adapter	1		LE,LEF
⚠	QMF51E2-4R0J1	Fuse	1		U
	E67142-T4R0	Fuse Label	1		U
	QPGA005-00703	Envelope	1	for Fuse	U
	E66416-003	Envelope	1	for Warrnty	J
⚠	E04056	Siemens Plug	1		U
	E35497-015	Caution Sheet	1	220V	U
	E300196-010	Envelope	1		Except LBS
	E300196-010B	Envelope	1		LBS
	E43486-330A	Sheet	1		LGI

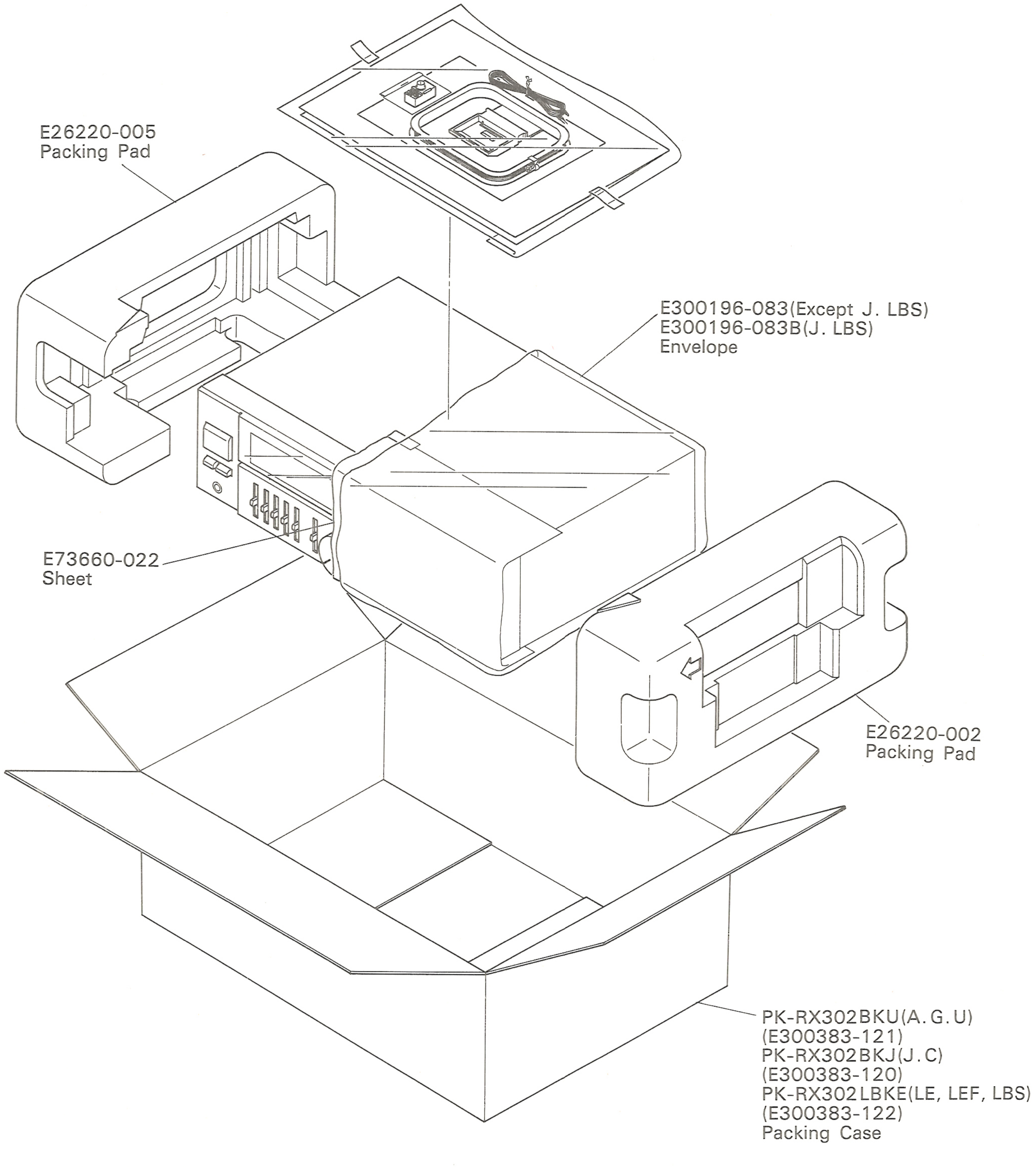
⚠: Safety parts

The Marks Designated Areas

J………………… the U.S.A.
C…………………Canada
A…………………Australia
G…………………West Germany
U…………………Other Countries

LE,LEF………Continental Europe (with LW)
LBS…………the U.K. (with LW)
LGI……………Italy (with LW)
No mark indicates all areas.

Packing Materials and Part Numbers


E26220-005
Packing Pad
E300196-083(Except J. LBS)
E300196-083B(J. LBS)
Envelope
E73660-022
Sheet
E26220-002
Packing Pad
PK-RX302BKU(A. G. U)
(E300383-121)
PK-RX302BKJ(J. C)
(E300383-120)
PK-RX302LBKE(LE, LEF, LBS)
(E300383-122)
Packing Case

The Marks Designated Areas

J	the U.S.A.	LE,LEF	Continental Europe (with LW)
C	Canada	LBS	the U.K. (with LW)
A	Australia	LGI	Italy (with LW)
G	West Germany		
U	Other Countries		

No mark indicates all areas.